

PS Form 3811, July 1983 447-845

Re: Vertac - Warren County, Ms. DOMESTIC RETURN RECEIPT

SENDER: Complete items 1, 2, 3 and 4. *SE/Solid Waste*

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- Show to whom, date and address of delivery.
- Restricted Delivery.

3. Article Addressed to:
Mr. Dick Karkkainen
Vertac Chemical Corp.
Suite 2414, 5100 Poplar Ave.
Memphis, TN 38137

4. Type of Service:
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Article Number
P165
465 876

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6. Signature - Agent
X *[Signature]*

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[Signature]

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MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
P. O. Box 20305
Jackson, Mississippi 39209
(601) 961-5099



November 22, 1985

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Dick Karkkainen
Vertac Chemical Corporation
Suite 2414
5100 Poplar Avenue
Memphis, Tennessee 38137

Dear Mr. Karkkainen:

At its meeting held on Wednesday, November 20, 1985, the Mississippi Commission on Natural Resources considered certain evidence regarding your facility in Vicksburg, Mississippi. Enclosed is Commission Order No. 948-85, which has been issued as a result of that consideration.

Your cooperation in carrying out the provisions of the enclosed order is encouraged. As you know, appeals can be taken in accordance with the law.

If you have any questions in this matter, please contact Mr. Chuck Estes at telephone #961-5171.

Sincerely,

A handwritten signature in cursive script, appearing to read "Charlie L. Blalock".

Charlie L. Blalock
Executive Director

CLB:CHC:mh

Enclosure

cc: Mr. John Hill, Vertac Chemical Corporation, Vicksburg, Mississippi

BEFORE THE MISSISSIPPI COMMISSION ON NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

IN THE MATTER OF:

MISSISSIPPI COMMISSION ON
NATURAL RESOURCES

COMPLAINANT

VS.

ORDER NO. 948 85

VERTAC CHEMICAL CORPORATION

RESPONDENT

ORDER

The above styled cause came on this date for consideration and the Commission, having heard and considered the same, finds as follows:

1.

The Respondent, Vertac Chemical Corporation, manufactures industrial chemicals, which process has resulted in the generation and storage of hazardous wastes, and, as such is subject to the provisions of laws of this State governing the storage and handling of hazardous wastes, the same appearing as Section 17-17-1, et. seq., and the rules and regulations of the Mississippi Commission on Natural Resources.

2.

On June 18, 1985, the Respondent submitted a revised Part B application. The application was found to be deficient.

3.

On January 24, 1984, the Respondent was notified of possible groundwater contamination at the Vicksburg facility. The Respondent submitted a groundwater corrective action plan on June 18, 1985, as part of a Part B application. The corrective action plan requires additional information.

4.

Premises considered, the Commission finds that the Respondent must submit a corrected Part B application in accordance with the Bureau of Pollution Control's letter of November 14, 1985. The Respondent must also satisfy the groundwater requirements of the Bureau of Pollution Control's letter of November 14, 1985.

IT IS, THEREFORE, ORDERED AND ADJUDGED that the Respondent, Vertac Chemical Corporation, shall carry out the following activities on the dates specified:

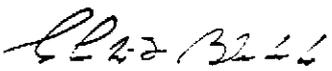
1. On or before January 10, 1986, submit a report including the groundwater data and closure/post-closure information that satisfies the requirements of the Bureau of Pollution Control's letter of November 14, 1985 (see attachment), and MHR 264 Subparts G, and K.
2. On or before May 16, 1986, submit a draft Groundwater Corrective Action Plan to the Bureau of Pollution Control, in accordance with MHR 264.100.
3. On or before June 16, 1986, submit the finalized Groundwater Corrective Action Plan and begin implementation in accordance with the Bureau of Pollution Control's letter of November 14, 1985 (see attachment), and MHR 264.100.

IT IS FURTHER ORDERED AND ADJUDGED that this Order shall become final thirty (30) days after the date of rendition hereof, unless the Respondent, before the said thirty (30) days have elapsed, files a sworn petition with this Commission as provided by Section 49-17-41, Mississippi Code Annotated (1972) setting forth the grounds and reasons for said complaint and asking for a hearing thereon.

ORDERED AND ADJUDGED, this the 20th day of November, 1985, by the Mississippi Commission on Natural Resources.

MISSISSIPPI DEPARTMENT OF
NATURAL RESOURCES

BY:


CHARLIE L. BLALOCK
EXECUTIVE DIRECTOR

FILE COPY

November 14, 1985

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor, 5100 Poplar
Memphis, Tennessee 38111

Mr. John G. Hill
Vertac Chemical Corporation
P. O. Box 3
Vicksburg, Mississippi 39180

Gentlemen:

Re: Part B Application

In a recent review of portions of your RCRA Part B Permit Application we found several deficiencies that must be addressed, and have the following comments and requests for additional information:

Closure and Post-Closure Plan

1. The Closure Plan does not state to what levels the equipment used in closure will be decontaminated. It is also necessary to submit the analysis procedures that will be used to demonstrate that the decontamination levels have been reached.
2. The Closure Plan must specify the sampling and analysis techniques for the samples taken from the sediment, base, and sidewalls of the ponds prior to the start of closure activities.
3. Equipment associated with the operation of the impoundment such as discharge and inlet pipes, pumps, and hoses are to be decontaminated or disposed of. If the equipment is to be decontaminated and reused the method of decontamination must be specified along with the method of demonstrating that decontamination is successful.
4. The post-closure plan lacks the required maintenance and inspection procedures and schedules for the groundwater monitoring system. Frequency of inspections should be stated.
5. The system of drain pipes and slide gates used to isolate the site during a 100 year flood must be inspected regularly.
6. The name, address, and phone number of the person responsible for maintaining and updating of the post-closure plan both prior to, and during post-closure must be included.

Mr. Dick Karkkainen and
Mr. John G. Hill
November 14, 1985
Page -2-

7. In accordance with MHWR 264.119, the survey plat submitted to local land use authority and the EPA Regional Administrator must be prepared and certified by a professional land surveyor. In addition, the locations and dimensions of the surface impoundment must be with respect to permanent surveyed benchmarks. The plat must also contain a prominently displayed notice stating the owner or operator's obligation to restrict disturbance of the site as specified in MHWR 264.117(c).
8. The notation on the deed must include notice that use of the land is restricted to activities as specified in MHWR 264.117(c). The notation must address the requirements stated in MHWR 264.119 regarding notification of the local land use authority.
9. The post-closure cost estimate must include provisions for administrative costs, inspection costs, and hourly labor costs.
10. The application lacks certificates of liability insurance for both sudden and non-sudden accidental occurrences.
11. The application must include certification as specified in MHWR 270.11 signed by a responsible corporate officer.

Security, Contingency Plan and Personnel Training

1. The following changes of inspection schedules are necessary:
 - a. First aid equipment to be inspected weekly.
 - b. Emergency horns to be tested monthly.
 - c. Protective clothing needs to be inspected monthly.
 - d. The dike surrounding the impoundment should be inspected for deterioration after storms.
2. The application must include a statement that incompatible wastes and materials are not stored in the same surface impoundment.
3. The list of emergency equipment, communication and alarm systems, and decontamination equipment must include a brief outline of the capabilities of each piece of equipment.
4. A statement authorizing the designated emergency coordinators to commit the necessary resources to implement the contingency plan must be included.
5. The hazardous waste training program must document that the program is directed by a person trained in hazardous waste management.

Mr. Dick Kerkkainen and
Mr. John G. Hill
November 14, 1985
Page -3-

The preceding changes should be made and submitted to this office no later than January 10, 1986.

In addition, the following schedule must be adhered to in complying with groundwater corrective action requirements as specified in MHWR Parts 264 and 270.

1. January 10, 1986 - Submit a report to this office that satisfies the following requirements:
 - a. Identifies the source of contamination.
 - b. Identifies the extent of contamination including location of the plume and contamination levels throughout the plume.
 - c. Characterizes the aquifer.
2. May 16, 1986 - Submit a draft Groundwater Corrective Action Plan to this office for approval.
3. June 16, 1986 - Submit the finalized Groundwater Corrective Action Plan and begin its implementation.

On November 20, 1985, the staff of the Bureau of Pollution Control will recommend to the Mississippi Commission on Natural Resources that the compliance dates mentioned in the preceding letter be incorporated into a Commission Order.

If you have any questions or comments regarding these matters, please contact us at 961-5171.

Sincerely,

Jack McMillan, Director
Division of Solid Waste Management

JEM:els

P 669 601 575

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

Mr. Dick ^(See Reverse) Karshainen

★ U.S.G.P.O. 1983-403-517

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Street and No.	24 Floor, 5100 Poplar
P.O., State and ZIP Code	Memphis, Tenn. 38137
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$

PS Form 3800, Feb. 1982

Postmark or Date



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
P.O. Box 20305
Jackson, Mississippi 39209
(601) 961-5000



June 18, 1984

FILE COPY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor, 5100 Poplar
Memphis, Tennessee 38137

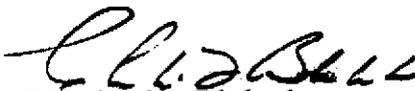
Dear Mr. Karkkainen:

At its meeting held on Monday, June 11, 1984, the Mississippi Commission on Natural Resources considered certain evidence regarding your operation in Meridian, Mississippi. Enclosed is Commission Order No. 717-84, which has been issued as a result of that consideration.

Your cooperation in carrying out the provisions of the enclosed order is encouraged. As you know, appeals can be taken in accordance with the law.

If you have questions, please do not hesitate to contact us.

Sincerely,


Charlie L. Blalock
Executive Director

CLB:CHC:mh

Enclosures

BEFORE THE MISSISSIPPI COMMISSION ON NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

IN THE MATTER OF:

MISSISSIPPI COMMISSION ON
NATURAL RESOURCES

COMPLAINANT

VS.

ORDER NO. 717 84

VERTAC CHEMICAL CORPORATION

RESPONDENT

ORDER

The above styled cause came on this date for consideration and the Commission, having heard and considered the same, finds as follows:

1.

The Respondent, Vertac Chemical Corporation, manufactures industrial chemicals, which process has resulted in the generation and storage of hazardous wastes, and, as such is subject to the provisions of laws of this State governing the the storage and handling of hazardous wastes, the same appearing as Section 17-17-1, et. seq., and the rules and regulations of the Mississippi Commission on Natural Resources.

2.

On August 12, 1983, the Respondent submitted a Part B application for a permit to store hazardous waste. The application was found to be deficient. On December 27, 1983, the Respondent resubmitted the application which was also found to be deficient.

3.

On March 12, 1984, the Respondent notified the Bureau of Pollution Control that a statistical increase at a groundwater monitoring parameter was found. The presence of a hazardous constituent was confirmed.

4.

Premises considered, the Commission finds that the Respondent must submit a corrected Part B application in accordance with the Bureau of Pollution Control's letter of June 11, 1984. The Respondent must also submit a proposal for a groundwater assessment program.

IT IS, THEREFORE, ORDERED AND ADJUDGED that the Respondent, Vertac Chemical Corporation, shall carry out the following activities on the date specified:

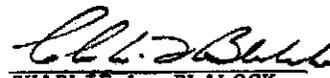
1. On or before August 6, 1984, submit a groundwater assessment program to the Bureau of Pollution Control for approval.
2. On or before August 30, 1984, submit a revised Part B application which meets the requirements of Bureau of Pollution Control's letter. (See attachment.)

IT IS FURTHER ORDERED AND ADJUDGED that this Order shall become final thirty (30) days after the date of rendition hereof, unless the Respondent, before the said thirty (30) days have elapsed, files a sworn petition with this Commission as provided by Section 49-17-41, Mississippi Code Annotated (1972) setting forth the grounds and reasons for said complaint and asking for a hearing thereon.

ORDERED AND ADJUDGED, this the 11th day of June, 1984, by the Mississippi Commission on Natural Resources.

MISSISSIPPI DEPARTMENT OF
NATURAL RESOURCES

BY:


CHARLIE L. BLALOCK
EXECUTIVE DIRECTOR



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209
(601) 961-5171



June 11, 1984

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor, 5100 Poplar
Memphis, Tennessee 38137

Dear Mr. Karkkainen:

Re: Part B Application Review
for MSD990714081

After reviewing your facility's resubmitted Part B application, specific items listed on the attached pages were found to need clarification or additions. The application should be submitted with appropriate page numbers.

Please organize the new material so that it may be inserted into the original application or send us an entirely revised application. All corrections and/or additions to the application must be submitted to this office no later than August 30, 1984. Please contact us should you have any questions on any of these items.

Sincerely,

A handwritten signature in cursive script that reads "Charles Estes".

Charles Estes, P. E.
Hazardous Waste Section

CE:hdb

Attachments

cc: Ms. Beverly Spagg, Environmental Protection Agency, Region IV

VERTAC CHEMICAL
June 1984
Items Needing Attention

1. The types of problems to look for during the inspection of the emergency equipment must be listed. This may be done by adding another column on the emergency equipment inspection page. Examples of problems to look for with the equipment could be missing items, inoperative equipment or empty equipment.
2. Under "Storage and Treatment of Released Material," a statement must be added that after an emergency the facility will notify our office that all emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.
3. Under G-6 (Coordination Agreements) copies of the contingency plan must be sent to local police and fire departments, hospitals, contractors, and local emergency response teams. A statement that this has been done must be included.
4. The personnel training section must include the requisite skill, education, or other qualifications for each position.
5. Include procedures for using, inspecting, repairing and replacing emergency and monitoring equipment in the training section for the effluent operators.
6. I-1a - Closure Performance Standard - A more detailed summary of the closure activities and what the facility plans to accomplish through closure is needed. An example is enclosed which may be modified to fit the facility.
7. I-1b - The following items in the Final Closure Activities need to be described in more detail:
 - a. Describe how the liquids in the impoundment will be disposed of.
 - b. How deep will Sections 1 and 2 be dredged?
 - c. What levels of contamination will be the basis for depth of dredging?
 - d. Will samples be taken to determine the level of contamination? How many and where?
 - e. Provide calculations to substantiate the 6,000 cubic yards of hazardous waste.
 - f. Provide calculations to substantiate the amount of material in the finger dike between Sections 1 and 2.
 - g. How will the dredge material from Sections 1 and 2 be transported and deposited in Section 3?

- h. How will the top five feet of the dike around Sections 1 and 2 be removed and transported and deposited in Section 3?
 - i. How will compaction of the cover material be provided?
 - j. The permeability of the cover material must be equal to or less than the subsoil under the management area. Provide data to substantiate this.
 - k. Give an estimate of the amount and type of fertilizer and grass seed to be used. Will the area be mulched to prevent erosion?
 - l. The final cap must be of uncontaminated soil. Since the dike will have been in contact with the wastewater and sediments, clean borrow material must be used for the cap.
 - m. A closure checklist is enclosed for you to complete and compare to the closure plan.
8. The proposed closure plan will result in lowering the dike height allowing possible flooding of parts of the site and potential eroding from the creek. Since some level of contaminants will probably remain in Sections 1 and 2, how will erosion and stability of the closed area be insured?
9. A more detailed engineering drawing of the final plan view and final cross-sections (with a cross-section in the north-south direction) in Sketch a (3) III-1 must be made. The engineering drawing must be to scale with one foot contours. The drawing must be expanded to indicate how the waste management area will tie into the surrounding areas, i.e. the creek, inactive landfill, and railroad.
10. I-2 - Post Closure Activities - A more detailed description of activities to be performed is needed.
- a. How often will the area be inspected? By whom?
 - b. What will the inspections look for?
 - c. How often will the area be mowed?
 - d. What equipment will be used for erosional control?
 - e. Where will fill material for erosion come from?
 - f. A post-closure checklist is enclosed for you to complete and compare to the post-closure plan.
11. The regulations require monitoring of compliance wells twice a year during the 30-year post-closure period. A statement must be added that Vertac will sample the wells as required by the regulations.
12. I-1d - Decontamination - The closure plan indicates that a dragline and bulldozer will be used to move hazardous wastes also trucks may be used. These as well as other facility equipment such as the pumps to the carbon unit must be decontaminated at closure and procedures to do so described.

13. I-1e - Closure Schedule - The closure schedule is inadequate. It must be replaced with a schedule indicating the total time to complete closure, the time to complete specific closure activities and an inspection schedule to be used during closure.
14. I-3 - Notice in Deed to Property and Notice to Local Land Authority - A statement must be included indicating how the facility will meet the requirements listed in Sections 264.119 and 264.120 with respect to the impoundment identified in the Part B.
15. I-4 and I-6 - Closure and Post Closure Cost Estimates -
 - a. Include the cost of disposal of the wastewater giving the amount and cost per gallon.
 - b. Detail the costs for the earthwork on all items. The cost must break-out the labor, equipment, material movement (dump trucks) and decontamination costs for each of the steps described in the closure plan.
 - c. Provide the calculations to substantiate the 20,000 cubic yards figure in Item 4 of the closure costs.
 - d. Break-out the costs of seed, fertilizer, labor and equipment in planting grass under Item 5 of the closure costs.
 - e. Include the cost of sampling and analyzing the soil in Sections 1 and 2 to determine contamination levels. This should include field sampling and laboratory costs.
 - f. Under post-closure costs in Item 1, describe in more detail the 20 hours per year figure. Does this include erosion control, grass mowing, monitoring well sampling, etc?
 - g. Section 264.98(d) requires that each monitoring well at the compliance point be sampled at least semi-annually during the post-closure care period. The permit may be amended during post closure to modify this requirement. Therefore, the number of analyses given in Item 2 of the post closure costs must be amended.
16. I-5 - Closure/Post-Closure Trust Fund - A permit condition will require the pay in schedule to be amended to 10 years at the time of permit issuance.
17. Groundwater Monitoring -
 - a. The Vertac Chemical Corporation letter of March 9, 1984, indicated levels of atrazine in monitoring wells 1, 2, 5, 6, and 8. Samples taken by the Bureau of Pollution Control on November 9, 1983 found concentrations of atrazine in wells 6 and 8 and a significant concentration of DNEP in well 1. The Bureau of Pollution Control's data is enclosed. Section 270.14(c)(4) requires that a description of any plume of contamination be delineated. The information submitted in the Part B does not delineate a plume or provide sufficient information to do so. The Part B must be amended to include the delineation of the plume of contamination.

- b. Since hazardous constituents have been detected in the groundwater, a groundwater quality assessment plan must be implemented following Sections 265.93(d)(3) and (4).

LISTING BACKGROUND DOCUMENT

TOXAPHENE PRODUCTION

Wastewater Treatment Sludge from the Production of Toxaphene (T)

Untreated Process Wastewater from the Production of Toxaphene (T)

I. Summary of Basis for Listing

The production of toxaphene, a chlorinated hydrocarbon pesticide, results in the generation of process wastewater containing heavily diluted concentrations of toxaphene, and wastewater treatment sludges that contain approximately one percent of toxaphene by weight.

The Administrator has determined that process wastewater and wastewater treatment sludge from toxaphene production may pose a substantial present or potential hazard to human health or the environment when improperly transported, treated, stored, disposed of or otherwise managed, and therefore should be subject to appropriate management requirements under Subtitle C of RCRA. This conclusion is based on the following considerations:

- 1) Toxaphene is present in each of these waste streams; in the case of the wastewater treatment sludge, if it is found in very high concentrations. Toxaphene has been reported to cause cancer in laboratory animals and is extremely toxic. Toxaphene has also been recognized by the Agency as exhibiting substantial evidence of being carcinogenic. It is also a potent teratogen and has been shown to be mutagenic.
- 2) Approximately 7 tons of wastewater treatment sludge containing about 140 lbs. of toxaphene are generated per production day. About 19,000 tons of sludge are already disposed of in a landfill in Georgia. (5)

- 3) Disposal or treatment of these wastes in improperly designed or operated landfills or unlined lagoons could result in substantial hazard if toxaphene migrates via groundwater or surface water exposure pathways.
- 4) Toxaphene is highly persistent in the environment and bioaccumulates greatly in environmental receptors.

II. Sources of the Waste and Typical Disposal Practices

A. Profile of the Industry

Toxaphene is produced in this country by two manufacturers: Hercules, Inc. at its Brunswick, Georgia plant, and Vertac Chemical Company at its Vicksburg, Mississippi plant.(1)

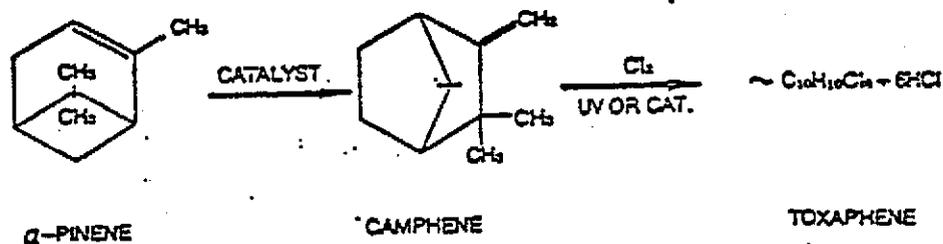
_____.(2,3)

Toxaphene is a complex mixture of polychlorinated camphenes containing 67 to 69 percent chlorine and has the approximate composition of $C_{10}H_{10}Cl_8$. It has been used exclusively as a non-systemic and persistent contact and ingestion insecticide. Toxaphene is marketed as a 90 percent toxaphene-10 percent solvent solution using mixed or modified xylene as the solvent. This solution is then formulated by various companies into emulsifiable concentrates, either alone or with other insecticides. Little or no toxaphene is currently being used in dust, wettable powder, or granule formulations.

*All underlined data are obtained from proprietary reports and data.

B. Manufacturing Process

Toxaphene is produced in essentially the same manner by both domestic manufacturers. The reaction chemistry is as follows:(19)



C. Waste Generation and Management*

At the Hercules plant, wastewater is generated from the toxaphene production process (leaks, spills and washdowns), as well as from the scrubbing of vent gases in the HCl absorption and recovery step (see Figure 1).

(2)

(3)

(2) The treated wastewater is directly discharged to a navigable waterway.

In Hercules' toxaphene wastewater treatment system, an average of 7 tons/day of wastewater treatment sludge (settled solids) is generated.(4,5)* The sludge results from the addition of diatomaceous earths

*Variations in wastewater treatment systems or in wastewater sources at the two plants may result in different concentrations of toxaphene in the wastewater treatment sludges.

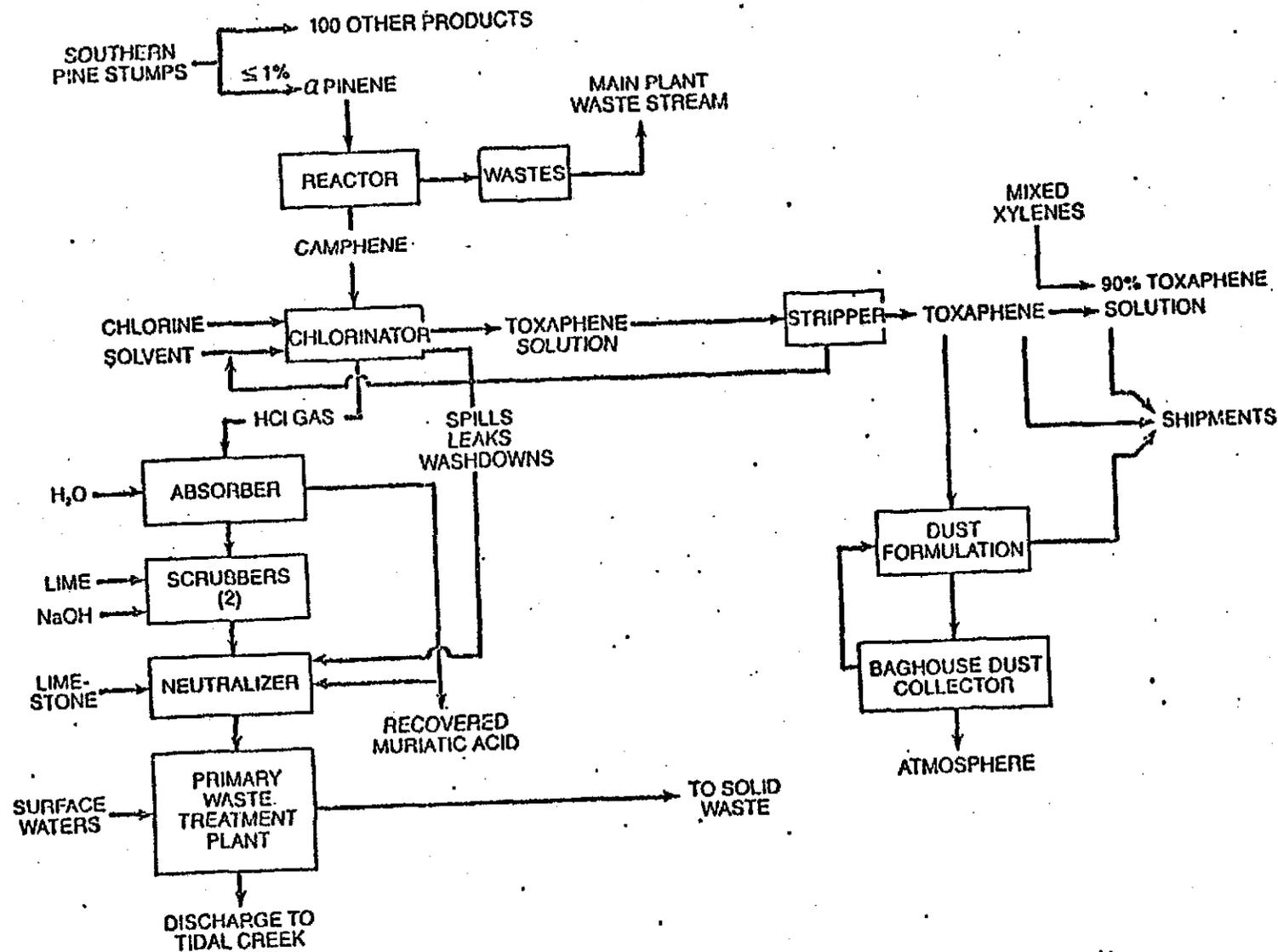


Figure 1. HERCULES' PRODUCTION AND WASTE SCHEMATIC FOR TOXAPHENE (4)

and lime to the wastewater as sorption agents for the removal of toxaphene from the wastewater.(5) The solids are allowed to settle in holding ponds and may remain there for months at a time.(13) After the basin is filled with solids it is taken off line and the sludge is allowed to dry to approximately 50% solids.(5) Analyses of the sludge performed by Hercules indicate that the sludge contains approximately one percent toxaphene by weight, or 10,000 mg toxaphene/kg of sludge.(5) Some 140 lb/day of toxaphene are generated and will be contained in this waste stream.(4,5)

The ultimate destination of the toxaphene wastewater treatment sludge generated at the Hercules plant is a state-approved landfill.(6) The landfill is known as the "009" landfill and is a privately owned site operating under Georgia permit. It is used exclusively for the disposal of the toxaphene wastewater treatment sludge generated at the Hercules Plant.(6) The "009" landfill used for disposal of the Hercules toxaphene wastewater treatment sludge has a bentonite clay liner, and has 6 monitoring wells which are monitored 4 times per year. To date, no toxaphene has been detected in the wells.(6)

(3).

(5)

-/-

(3,5)

(3)

_____* This pond, or lagoon, is unlined.(14) The treated wastewater is discharged to the Mississippi River.

III. Discussion of Basis for Listing

A. Hazards Posed by the Waste

As noted above, in the Hercules toxaphene wastewater treatment system, an average of 7 tons/day of waste sludge are generated.(4,5) The toxaphene content in the waste sludge is approximately at one percent by weight or 10,000 mg/Kg sludge. High concentrations of toxaphene are undoubtedly present in process wastewater to account for such high concentrations in the sludge.

Toxaphene is an exceptionally dangerous waste constituent. It is extremely toxic, highly bioaccumulative, and has been reported to cause cancer in laboratory animals. It is also a potent teratogen and has been shown to be mutagenic. Toxaphene is regulated as a toxic pollutant under §307(a) of the Clean Water Act. After an adjudicative

*No data is currently available on the amount of wastewater treatment sludges (settled solids) generated at the Vertac plant. Nor is any data available on the concentrations of toxaphene in these sludges.

proceeding, a discharge concentration limitation of 1.5 ppb has been established for toxaphene discharges into navigable waters, and this discharge limitation was judicially upheld in Hercules, Inc. v. EPA, 598 F. 2d 91 (D.C. Cir 1978). (The administrative and judicial records are incorporated by reference into this listing background document.) The Agency has also established a national interim primary drinking water standard of .005 mg/l for toxaphene. (That administrative record is likewise incorporated by reference.)

The wastes are listed as toxic based on the potential for waste mismanagement and resulting environmental harm. Toxaphene is both mobile and persistent, having frequently been found in clarified and treated municipal drinking water.(18) Existing waste management methods could lead to release of waste toxaphene. Wastewaters are presently treated in holding ponds. Waste treatment sludge, if generated, is now disposed in landfills and unlined lagoons. Disposal in landfills represents a potential hazard if the landfill is improperly designed or operated. This can result in leaching of hazardous compounds and subsequent contamination of ground water. Disposal in unlined lagoons also represents a potential hazard since the wastes may leach directly into the ground, resulting in possible groundwater contamination. Care must be taken to ensure that the lagoons and landfills used for storage or disposal of the toxaphene product wastes are properly designed and operated (e.g., lined with an appropriate thickness of impervious materials or provided with leachate collection/ treatment systems) to prevent contamination of groundwater or surface water.

Prior to disposal in the "009" landfill, the Hercules plant treats these wastes in holding ponds which, if not properly designed and operated, may result in groundwater or surface water contamination. The high water table and the sandy composition of the soil at the location of the Hercules plant in Brunswick, Ga., make careful management of these wastes particularly important. (13)*

Wastewater treatment sludge could also create a hazard if improperly managed. Although the sludges appear to be managed properly at the present time (suggesting that industry regards these wastes as hazardous), proper management of an otherwise hazardous waste does not make the waste non-hazardous.

One final reason for regulatory concern is noteworthy. Since toxaphene bioaccumulates in environmental receptors by factors of as much as 300,000⁽⁷⁾, if only a small amount leaches into the environment, a serious health hazard would be created. In the soil, toxaphene may persist from several months to more than 10 years (soil half-life is 11 years, Appendix B). It has also been shown to persist for up to 9 years in lakes and ponds.⁽⁷⁾ Thus, the potential for human exposure is considerable. The potential for substantial hazard is, therefore, very high.

The need for the most careful management of toxaphene-containing substances is thus well-established. In light of the documented health and environmental hazards associated with toxaphene, and the fact that substantial hazard is caused by ingestion of extremely small (ppb) toxaphene concentrations, the Agency believes it is justified in listing this waste.

*It should be noted that Hercules' past effluent management practices have not always been adequate, as Hercules has conceded that its past effluent discharge "had an adverse effect upon the ecology" of local waters." (18)

B. Health and Ecological Effects

1. Toxaphene

Health Effects - Toxaphene is extremely toxic [oral rat LD₅₀ = 40 mg/kg].(8) Death in humans from ingestion of this dosage has also been reported. (9) Toxaphene is also lethal to animals by inhalation and skin absorption at dosages of 1 g/kg or less.(10)

This chemical is teratogenic in mice when administered orally at a relatively small dose (350 mg/kg).(11) Toxaphene is carcinogenic in rats and mice, causing a significant increase in the incidence of thyroid and liver cancers when administered in the diet. (12) A significant increase in liver cancer has been reported in mice at dietary levels of 50 ppm.(15)

Toxaphene and its subfractions have been found mutagenic in the standard bacterial assay (S. typhimurium, strain TA100). (16)

Ecological Effects - Toxaphene is extremely toxic to fish, and toxic to lower aquatic organisms, birds, and wild animals. The LD₅₀ (96-hour) of toxaphene in static bioassays is 3.5, 5.1 and 14 ng/l for bluegills, fathead minnows, and goldfish, respectively.(7) Toxaphene is also capable of producing deleterious effects in fish at levels as low as 0.39 ng/l, and bioaccumulates by factors of as much as 300,000.(7)

Regulations - Toxaphene has an OSHA standard for air, TWA = 500 mg/m³ (Skin, SCP-F). Toxaphene is listed as a priority pollutant in accordance with §307(a) of the Clean Water Act of 1977. A 0.005 mg/l EPA National Interim Primary Drinking Water Standard has been established for toxaphene.

Industrial Recognition of Hazard - Toxaphene has been rated by
Sax, Dangerous Properties of Industrial Materials(15) to be highly toxic
through ingestion, inhalation, and skin absorption.

Additional information and specific references on adverse
effects of toxaphene can be found in Appendix A.

IV. References

1. 1977 Directory of Chemical Producers. Stanford Research Institute. Menlo Park, California.
2. Proprietary information submitted by Hercules, Inc. to the U.S. Environmental Protection Agency in 1978 response to "308" letter.
3. Proprietary information submitted by Vicksburg Chemical Company to the U.S. Environmental Protection Agency in 1978 response to "308" letter.
4. Meiners, A. F., C.E. Mumma, T. L. Ferguson, and G. L. Kelso. Westwater Treatment Technology Documentation for Toxaphene Manufacture. Report prepared by the Midwest Research Institute for the U.S. Environmental Protection Agency. EPA-400/9-76-013. February 1976.
5. Telephone communication to: Ms. Jennifer Kaduck, State of Georgia, Land Protection Division, Department of Natural Resources, Atlanta, Georgia (404-656-2833), February 28, 1980 (Edward Monnig, TRW).
6. Telephone communication to: Ms. Jennifer Kaduck, State of Georgia, Land Protection Branch, Environmental Protection Division, Department of Natural Resources, Atlanta, Georgia, 12 February 1980. (S. Quinlivan, TRW).
7. Criteria Document for Toxaphene. U.S. Environmental Protection Agency. EPS-440/9-76-0k14. June 1976.
8. Special Publication of Entomological Society of America. College Park, MD, Vol. 74:1 (1974).
9. Clinical Memorandum on Economic Poisons. U.S. Dept. HEW, PHS. COC, Atlanta, GA. p.1, 1956.
10. Council on Pharmacy and Chemistry. Pharmacologic Properties of Toxaphene, a chlorinated Hydrocarbon insecticide. JAMA 149:1135-1137, July 19, 1952.
11. Chernaff, N. and Carber, B.D. Fetal toxicity of toxaphene in rats and mice. Bull. Environ. Contam. Toxicol. 15:660-664, June, 1976.
12. National Cancer Institute. (1977) Guidelines for Carcinogenesis Bioassays in Small Rodents. Tec. Rep. No. 1 Publ. No. 017-042-00118-8. U.S. Govn. Print. Office, Washington, D.C.

IV. References (Continued)

13. Telephone Communications to: Ms. Jennifer Kadinck, et al., State of Georgia, Land Protection Division, Department of Natural Resources, Atlanta, Georgia, 8 April 1980. (Robert Karmen, EPA)
14. Telephone Communication: John King (EPA) to Edward Monmig (TRW), 8 April 1980.
15. Litton Bionetics, Inc. Carcinogenic evaluation in mice. Toxaphene Final Report. LBI Project No. 20602. Kensington, MD. Submitted to Hercules, Inc., Wilmington, Del., Nov. 1978.
16. Hill, R.N. (1977) Mutagenicity Testing of Toxaphene Memo dated Dec. 15, 1977, to Fred Hageman. Off. Spec. Pestic. Rev. U.S. Environmental Protection Agency, Washington, D.C.
17. Sax, N. Irving, 1975. Dangerous Properties of Industrial Materials. Fourth Edition, Van Nostrand Reinhold, New York.
18. Hercules, Inc. v. EPA, 598 F. 2d 91, 99 (D.C. Cir. 1978).
19. Lawless, E.W. Pesticide Study Series -5- "The Pollution Potential in Pesticide Manufacturing," Technical Studies Report; TS-00-72-04. Washington, U.S. GPO, 1972.

SUMMARY OF REGULATORY ACTIONS
AND OTHER WORK PERFORMED AT
CEDAR CHEMICAL CORPORATION
VICKSBURG, MISSISSIPPI

40CFR 265.90 required that, by November 11, 1981, operators of surface impoundments or landfills must install and operate a groundwater monitoring system.

1. The first hydrogeological work performed at the Cedar Chemical site was done in September-October 1981. It is summarized in a report by Developers International Services Corporation (DISC) dated November 21, 1981. Four monitoring wells were installed as follows:

- a) #1 - 30 feet BLS
- b) #2 - 40 feet BLS
- c) #3 - 30 feet BLS
- d) #4 - 20 feet BLS

These wells were sampled:

- a) December 16, 1981
- b) April 13, 1982
- c) September 30, 1982
- d) December 27, 1982

See Memo to File from David Lee dated April 15, 1982

Four additional wells were installed in march 1983. Sampling occurred:

- a) June 3, 1983 (Wells 4,5,6,7,8 only)
- b) July , 1983 (Wells 4,5,6,7,8 only)
- c) October 31, 1983 (Wells 1,2,5,6,7,8)
- d) November 9, 1983 (MDNR sampled all 8 wells)
- e) February 1984 (Wells 1,2,5,6,7,8)
- f) December 1984 (MDNR sampled wells 1 and 8)
- g) May 1985 (Appendix VIII was done on all 8 wells)
- h) February 6, 1986 (Wells 1,4,9,10,11 for DNBP only)

- 2) A USEPA Site Investigation was conducted on October 28, 1981. Four sediment samples and two surface water samples were collected. Vertac submitted the report to MDNR on April 20, 1982. The focus of the investigation was a reclaimed pit (landfill) area just to the southeast of the lagoons. (I

believe this to be where the SWCA was placed in 1989).

- 3) Several soil samples were collected (see August 24, 1982 letter) to locate clean dirt for remedial activities. Additional soil samples were collected in this area on October 28, 1982.
- 4) Commission Order 599-82 was issued November 11, 1982.
- 5) The Part B was formally requested by EPA in early 1983 (perhaps January).
- 6) The dike to the lagoons ruptured in February 1983, releasing 700,000 gallons of wastewater into Stout's Bayou. MDEQ collected several samples.
- 7) In late February-early March 1983, four additional monitoring wells were installed by MCI of Memphis, Tennessee. See March 21, 1983 report by MCI.
- 8) Three seepage/leachate samples were collected by MDNR on March 1, 1983.
- 9) The Part B was submitted on August 10, 1983. EPA commented on September 16, 1983. MDNR issued comments September 29, 1983. A revised Part B was requested by MDNR on November 1, 1983. On December 22, 1983, Vertac resubmitted the revised Part B. Mississippi Commission on Natural Resources Order 717-84 was issued June 11, 1984. It required submittal of a groundwater assessment program and a revised Part B. The groundwater assessment plan was submitted on August 6, 1984. The revised Part B was submitted September 27, 1984. An interim report for the groundwater assessment program was submitted on April 15, 1985. Because many of Vertac's responses to "requests for additional information" were not in a form which could be incorporated into the Part B, MDNR requested on March 29, 1985 that Vertac resubmit a Part B, taking in all past comments and responses, plus additional info that MDNR felt was lacking. This revised Part B was submitted on June 18, 1985.
- 10) Wells 1 - 8 were sampled for Appendix VIII constituents on May 23, 1985.
- 11) A Notice-of-Violation (NOV) was issued to Vertac by EPA on September 12, 1985 due to failure by Vertac to submit exposure

information for the impoundment as required by 270.10(j)(2).

- 12) On November 14, 1985, MDNR sent an NOD to Vertac regarding its most recent (June 18, 1985) submittal of Part B.
- 13) On November 20, 1985, MCNR issued Order 948-85, requiring a revised closure/post closure, groundwater monitoring and corrective action plans.
- 14) In late 1985, Vertac installed four new monitoring wells, bringing the total to twelve onsite monitoring wells.
- 15) On July 9, 1986, Vertac filed a Motion-to-Dismiss, based on the idea that the South Plant surface impoundments should be exempt from RCRA regulation due to the "de minimis" exclusion of the mixture rule (40 CFR 261.3). The case was argued at the September 16, 1986, Mississippi Commission on Natural Resources hearing, but no verdict was given.
- 16) On July 10, 1986, a Show-Cause hearing was called for Vertac at MDNR offices on August 26, 1986.
- 17) On July 31, 1986, MNR Permit Board formally denied Vertac issuance of a hazardous waste storage permit.
- 18) Numerous sediment and water samples were collected by MDNR on September 3, 1986. Some splits were sent by Vertac to EPS Lab.
- 19) On December 17, 1986, the Commission ruled that, with regard to Dinoseb, the South Plant impoundments were exempt from RCRA regulation. EPA and MDNR then wanted to have the units regulated with regard to Toxaphene.
- 20) On August 5, 1987, the Mississippi Commission on Natural Resources ruled that the surface impoundment at Vertac (Cedar) was not a hazardous waste management unit for Toxaphene wastes. This, coupled with the ruling of the Commission on December 17, 1986, for Dinoseb, effectively ended the need for a RCRA permit for that unit.

However, the Drum Storage Area, which had been found to be mismanaged in previous inspections, was considered by EPA to not be a less-than-90 day storage unit.

- 21) Because that Cedar knew that EPA did not view the South Plant surface impoundments well in spite of the Commission's ruling, they offered to contain sediments from the impoundments by solidification and landfilling. The impoundments could then continue to be used for non-hazardous waste treatment. However, Cedar did not want to proceed without the blessings of EPA and MDNR (now DEQ). EPA and DEQ refused to formally approve the action until a closure plan was submitted.

- 22) The Closure/Retrofit plan was submitted in August 1988. The plan called for the removal of contaminated sediments from the surface impoundment system and solidification in a double-lined, capped, leachate collected Solid Waste Consolidation Area (SWCA). The impoundments were to then be retrofitted with a double-liner with leachate collection and leak detection.

- 23) Closure work began about January 1989 and concluded _____.

a: CEDRSMRY.DOC

40 CFR 265.90 required that by 1/1/81, operators of surface impoundments or landfills must install & operate a GWS monitoring system

1. The first hydro work was done at the site in September/October 1981. It is summarized in a report by Developers International Services Corporation (DISC) dated November 21, 1981. Four monitoring wells were installed as follows:

- 1) #1 - 30 ft BLS
- 2) #2 - 40 ft BLS
- 3) #3 - 30 ft BLS
- 4) #4 - 20 ft BLS

- Dec 1984 (BPC Wells 1 & 8)
- 9) Feb 1984 (Wells 1, 2, 5, 6, 7, 8)
- 10) Mar 1985 (Wells 1-8) App VI
- 11) Feb 6, 1986 (Wells 1, 2, 4, 9, 10, 11; DNEP only)

Those wells were sampled

- 1) 12-16-81
- 2) 4-13-82 - ? missed a quarter?
- 3) 9-30-82
- 4) 12-27-82

Four additional wells were installed 3/83

- 5) 6-3-83 (wells 4, 5, 6, 7, 8)
- 6) 7- -83 (wells 4, 5, 6, 7, 8)
- ~~7) 8-3-83 (wells 4, 5, 6, 7, 8)~~
- 7) MDEQ sampled all wells 11-9-83
- 8) 10-31-83 (wells 1, 2, 5, 6, 7, 8)

See memo to File (GW), from David Lee dated 4/15/82

2. A USEPA site investigation was conducted on October 28, 1981. Four sediment samples and two surface water samples were collected. Verbac submitted the report to MDEQ on 4/20/82. The focus of the investigation was a reclaimable pit ^{clean/dry} area just to the southeast of the lagoons. (I believe this to be where the SWCA was placed in 1939).

3. Several soil samples were collected (see August 24, 1982 letter) to locate clean dirt for remedial activities. Additional soil samples were collected in this area on October 28, 1982.

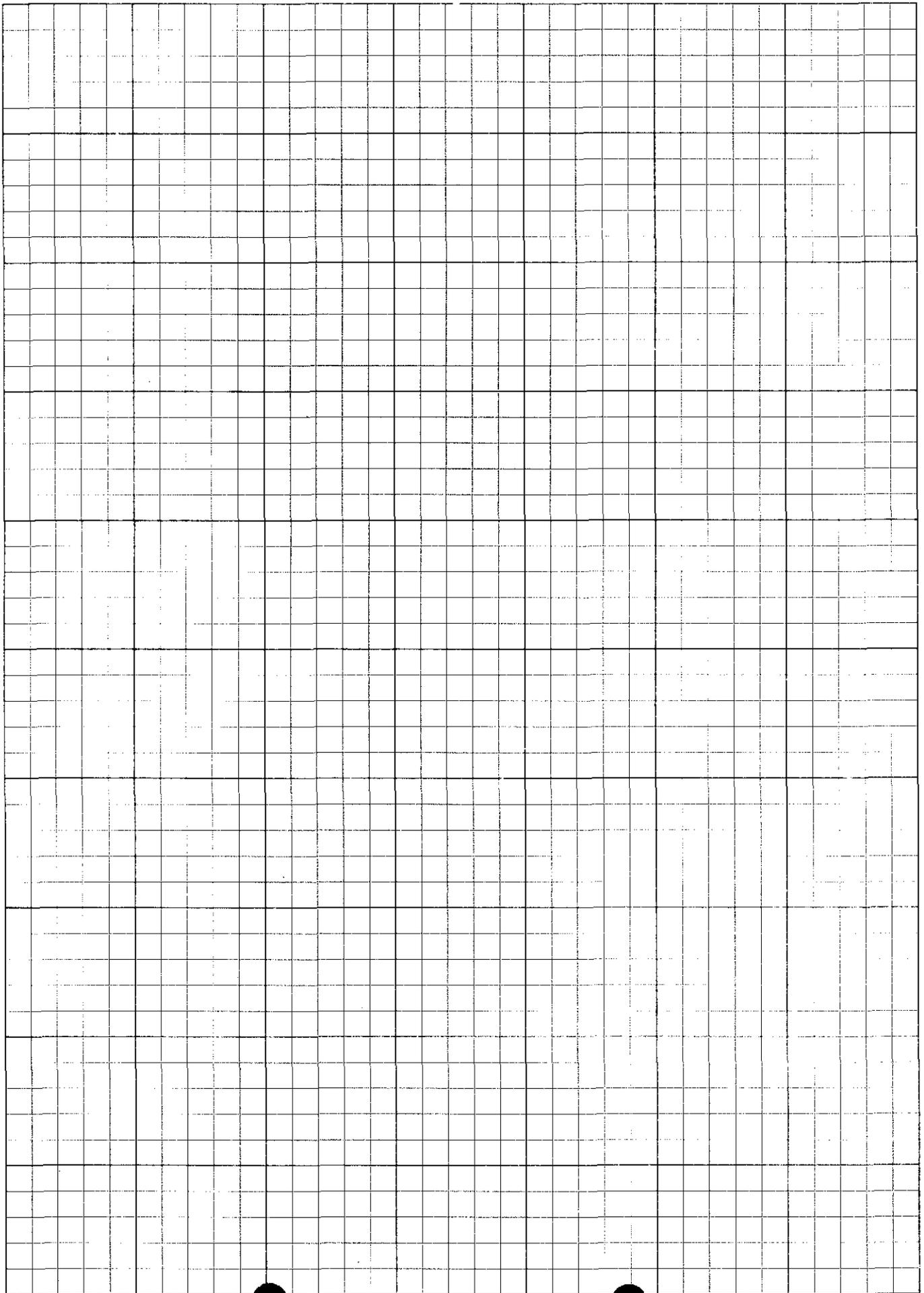
4. Commission order 599-82 was issued November 11, 1982

5. The Part B was formally requested ^{by EPA} in early 1983 (perhaps January)

6. The dike to the lagoons ruptured in Feb 1983, releasing about 700,000 gallons of wastewater into Stout's Bayou. MDEQ collected several samples

8. Three seepage/leachate samples were collected by DEQ on 3/1/83

7. In late February - early March 1983, 4 additional monitoring wells were installed by MCI of Memphis, Tennessee. See 3/21/83 report by MCI



9. The Part B was submitted on August 10 1983. EPA commented on September 16, 1983. MDEQ issued comments September 29, 1983. A revised Part B was requested by MDEQ on November 1, 1983. On December 27, 1983, Vertac resubmitted the revised Part B. Because many of Vertac's responses to "requests for additional information" were not in a form which could be incorporated into the Part B, MDNR requested on March 29, 1985 that Vertac resubmit a Part B taking in all past comments and responses, plus additional info MDNR felt was lacking.

10. (Mississippi Commission on Natural Resources Order 717-84 was issued on June 11, 1984. It required submittal of a GW assessment program and a revised Part B. The GW assessment plan was submitted August 6, 1984. The revised Part B was submitted September 27, 1984.

a) The interim report for the GW assessment program submitted 4/15/85

10. Wells 1-8 were sampled for App VIII constituents on May 23, 1985.

12. A Notice-of-Violation (NOV) was issued to Vertac by EPA on Sept 12, 1985 due to failure ^{by Vertac} to submit exposure information for the impairment as required by 270.10(j)(2).

- This Part B was submitted on June 13, 1985. On November 14, 1985, MDNR sent a NOD to Vertac regarding its most recent Part B submittal.

11. On November 20, 1985, MDNR issued Order 943-85, requiring ^{a revised} plan and groundwater monitoring and corrective action plan ^{closure/part closure}

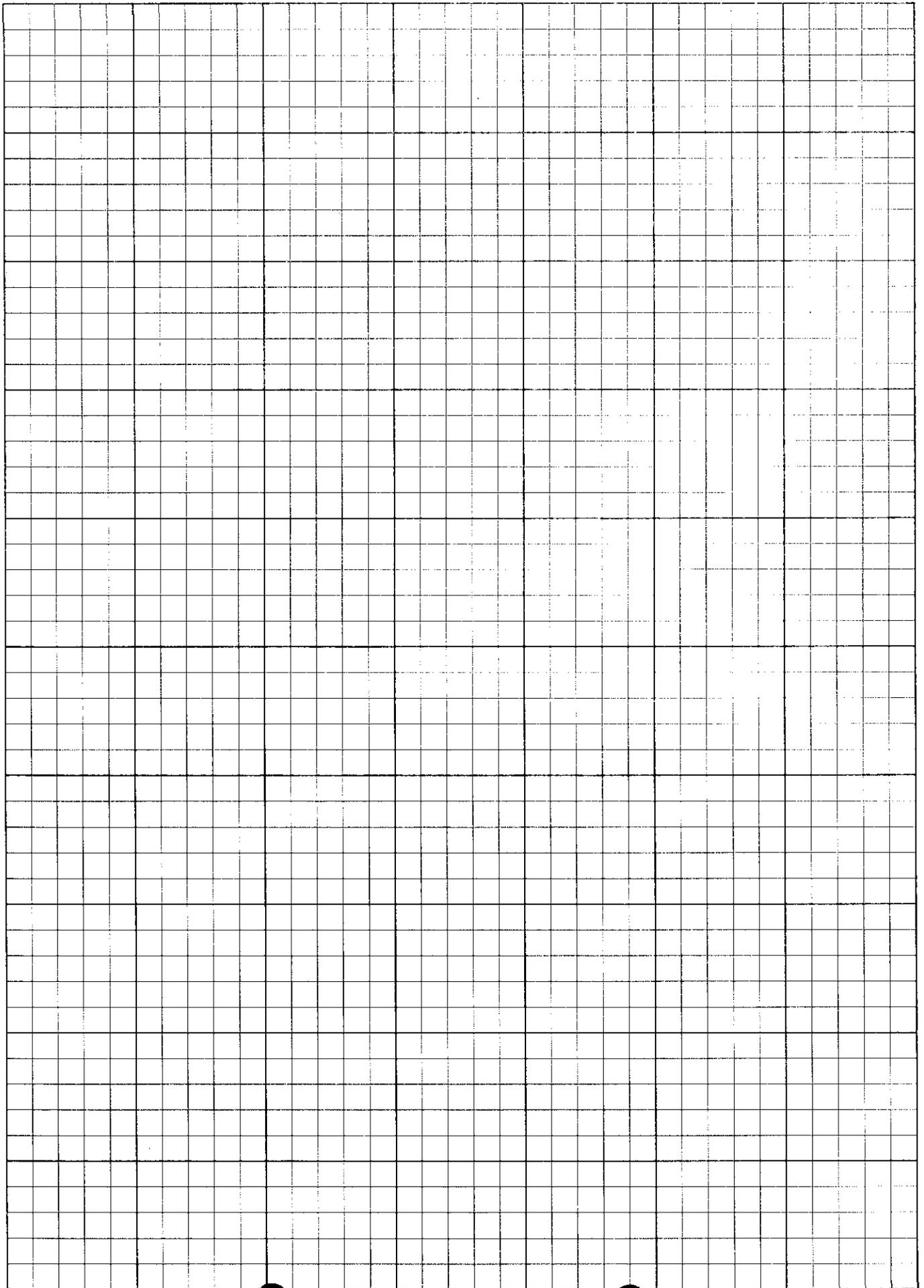
12. In late 1985, Vertac installed 4 new monitor wells (called #'s 9, 10, 11, and 12)

13. On July 9, 1986, Vertac filed a Motion-to-Dismiss.

14. On July 10, 1986, a Show Cause hearing was called for Vertac @ MDNR on August 26, 1986

15. On July 31, 1986, MNR Permit Board formally denied ^{Vertac} issuance of a hazardous waste storage permit. Also, closure plan comments were issued.

16. Numerous sediment & water samples were collected by MDNR on September 3, 1986. Some splits were sent by Vertac to EPS



for toxaphene wastes

After the Commission's ruling of December 17, 1986, that the unit was not a hazardous waste management unit

impoundment for Dioxin, this

4. On August 5, 1987, the Mississippi Commission on Environmental Quality ruled that the surface impoundment at Cedar was not a hazardous waste management unit, effectively ending the need for a RCRA permit for that unit.

1. After several submittals of a Part B application ^{by Cedar} and having found them ~~inadequate~~ deficient, MDEQ requested a "show-cause" meeting on July 9, 1986

2. Cedar filed a Motion-to-Dismiss based on the idea that the South Plant surface impoundments should be exempt from RCRA regulation due to the "de minimus" exclusion of the mixture rule (40CFR 261.3). The case was argued at the September 16, 1986 ~~Mississippi Commission on Environmental Quality hearing~~ Mississippi Commission on Environmental Quality hearing, but no verdict was given.

3. On December 17, 1986, the Commission ruled that, with regard to Dioxin, the South Plant impoundments were exempt from RCRA regulation. EPA and MDEQ then wanted to have the units regulated under RCRA with regards to Toxaphene.

5. However, the Drum Storage Area, which had been found mismanaged in previous inspections, was considered by EPA not to be a less-than-90 day unit.

6. Because Cedar knew that EPA did not view the South Plant surface impoundments well in spite of the Commission's ruling, they offered to contain sediments from the impoundments by solidification and landfilling. The impoundments could then continue to be used for nonhazardous waste treatment. However, Cedar did not want to proceed without the blessings of EPA and MDEQ. EPA + MDEQ refused to comment until a formal closure plan was submitted

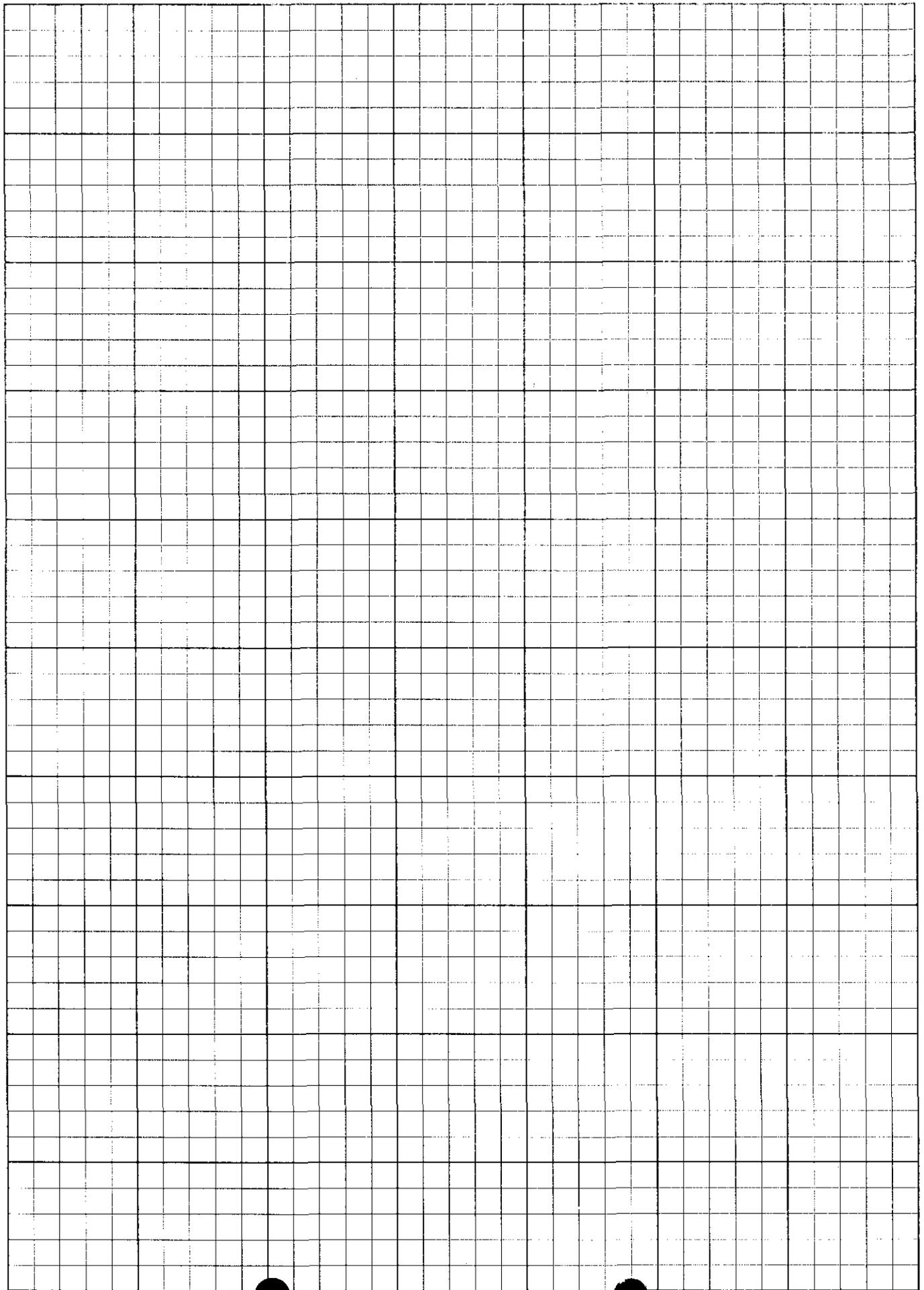
7. The Closure/Retrofit plan was submitted in August 1988. The plan called for the removal of contaminated sediments from the surface impoundment system and solidification in a double-lined Solid Waste Consolidation Area (SWCA). The impoundments were to then be retrofitted with a double-lined, leachate collection system.

leachate collection, capped



B. Closure work began about January 1989 and perhaps
concluded —

- See letter of 12/20/84
- See letter of 2/21/84



DOCKET
Vertac Chemical Corporation

<u>Number</u>	<u>Date</u>	<u>Description</u>
1	02/16/83	EPA and DNR letter requesting Part B
2	03/14/83	Memo describing a meeting on the Part B submittal
3	04/07/83	Vertac letter describing activities to replace the impoundment dike
4	04/25/83	Vertac letter describing contracts for dike impoundment
5	05/31/83	Vertac letter with revised Part A and information on tank storage
6	06/06/83	Commission order to repair the dike
7	06/09/83	Vertac letter revising inspection form
8	06/21/83	Vertac submittal of plans for modifying dike
9	06/30/83	Vertac modifications to contingency plans
10	07/18/83	EPA letter concerning review of the dike corrections
11	08/10/83	Part B received
12	08/24/83	DNR letter to EPA transmitting Part B applications
13	09/16/83	EPA letter reviewing proposed dike construction
14	09/29/83	DNR letter commenting on dike construction
15	10/26/83	Memo on inspection of dike construction
16	10/28/83	Vertac letter concerning dike construction
17	10/18/83	EPA letter on completeness review
18	11/01/83	DNR letter with completeness review
19	11/18/83	DNR inspection letter of impoundment dike
20	11/21/83	Vertac letter certifying dike completion
21	12/22/83	Vertac response to completeness review and Part B modifications

<u>Number</u>	<u>Date</u>	<u>Description</u>
22	01/24/84	Memo on conversation with Vertac concerning groundwater contamination
23	03/09/84	Vertac letter on possible groundwater contamination
24	06/11/84	BPC letter requiring additional Part B information
25	08/06/84	Vertac letter on groundwater assessment
26	08/14/84	Vertac request for extension for submittal of additional Part B information
27	09/13/84	BPC letter granting Part B extension
28	09/27/84	Vertac letter on additional Part B information
29	10/03/84	BPC letter on Vertac's groundwater assessment
30	11/14/84	Vertac letter on groundwater assessment Appendix VII scan
31	11/26/84	BPC letter on groundwater assessment
32	02/22/85	Vertac letter on Appendix VIII scan
33	02/28/85	BPC letter requiring Appendix VIII scan
34	03/12/85	EPA letter requiring Vertac to submit revised Part B in accordance with 1984 amendments
35	03/19/85	Letter from Vertac requesting BPC approval of Appendix VIII sampling proposal
36	03/29/85	Letter from Vertac

<u>Number</u>	<u>Date</u>	<u>Description</u>
37	03/29/85	Letter from BPC requiring a revised Part B and groundwater corrective action plan
38	04/11/85	Letter from EPA notifying Vertac of the 1984 HSWA requirements
39	04/22/85	BPC letter to Vertac approving Appendix VIII sampling plan
40	05/23/85	Letter from IT Corporation requesting extension of the deadline for Part B revision
41	05/28/85	Vertac letter confirming inability to meet June 19, 1985 submittal date.
42	06/05/85	BPC letter to Caron Falconer enclosing latest information on Vertac's groundwater
43	06/18/85	BPC letter granting an extension for Part B submittal
44	10/01/85	Vertac letter to Region IV stating intentions of submitting Exposure Report by 10/25/85
45	04/25/86	Facility Status Sheet - Part B
46	04/26/86	Facility Status Sheet - Closure



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-267-6851

July 23, 1984

RECEIVED
1984 JUL 27 AM 9:21
MISSISSIPPI DEPARTMENT
OF NATURAL RESOURCES
BUREAU OF POLLUTION
CONTROL

REPLY TO: P. O. BOX 3

VICKSBURG, MS 39180

(601) 636-1231

Mississippi Dept. of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Gentlemen: Attention: Mr. Chuck Estes
Hazardous Waste Division

Subject: Amendment to Notification of
Hazardous Waste Activity

Attached is the amendment to above covering the Dehpa Plant waste stream.

The Dehpa waste is a liquid and will be deep-welled. It is, to the best of my knowledge, a non-listed waste which is hazardous by the characteristic of ignitability.

If the above is not suitable or if additional information is required, please advise.

Sincerely,

R. F. Maraman

R. F. Maraman
Chief Chemist

RFM/ld
Enc.

cc - F. Ahlers
B. Gastrock
D. Karkkainen
D. Madsen
RFM
File



Revised Part 25

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

MSD99071408

GENERAL INFORMATION

I. EPA I.D. NUMBER

II. FACILITY NAME

III. FACILITY MAILING ADDRESS

IV. FACILITY LOCATION

MSD990714081
VERTAG Chemical Corporation
Vicksburg Facility
RIFLE RANGE RD
VICKSBURG, MS 39180

RIFLE RANGE RD
 VICKSBURG, MS 39180

INSTRUCTIONS:
 Read previous forms to determine if this is correct. Also, if you are providing information, you need not provide information (except Vicksburg). If you provide information, it must be authorized.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your facility is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X'			SPECIFIC QUESTIONS	YES	NO
	YES	NO	FORM ATTACHED			
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X			D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		

III. NAME OF FACILITY
 VERTAG CHEMICAL CORP. VICKSBURG, MS PLANT

IV. FACILITY CONTACT
 A. NAME & TITLE (last, first, & title)
 Maramba, Bob Chief Chemist
 B. PHONE (area code & no.)
 601 636 1231

V. FACILITY MAILING ADDRESS
 A. STREET OR P.O. BOX
 P. O. BOX 3
 B. CITY OR TOWN
 VICKSBURG,
 C. STATE
 MS
 D. ZIP CODE
 39180

VI. FACILITY LOCATION
 A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER
 RIFLE RANGE ROAD
 B. COUNTY NAME
 WARREN
 C. CITY OR TOWN
 D. STATE
 MS
 E. ZIP CODE
 39180
 F. COUNTY CODE

A. FIRST

D. SECOND

2, 8, 6, 5

(specify)

Organics

7, 2, 8, 1, 6

(specify)

Inorganics

C. THIRD

D. FOURTH

(specify)

7

(specify)

OPERATOR INFORMATION

A. NAME

B. Is the name Item VIII Owner?

VERTAG CHEMICAL CORPORATION

YES

COOR

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)

D. PHONE (area code & no.)

FEDERAL
STATE
PRIVATE

M - PUBLIC (other than federal or state)
O - OTHER (specify)

P (specify)

9 0 1 7 6 7 6 8

E. STREET OR P.O. BOX

Suite 2414 5100 POPLAR AVE.

F. CITY OR TOWN

G. STATE

H. ZIP CODE

IX. INDIAN LAND

MEMPHIS

TN

3, 8, 1, 3, 7

Is the facility located on Indian land?

YES NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)

D. PSD (Air Emissions from Proposed Sources)

MS0027995

9 P

B. UIC (Underground Injection of Fluids)

E. OTHER (specify)

U

9

2780-00041

(specify) Air Pollution Control Permit

C. RCRA (Hazardous Wastes)

E. OTHER (specify)

MSD990714081

9

(specify)

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

PRODUCTION OF: (1) Pesticides (Dinitrobutyl phenol and mono sodium methane arsenate)
(2) Potassium Nitrate, Chlorine, and Nitrogen Tetroxide

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained herein, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME & OFFICIAL TITLE (type or print)

B. SIGNATURE

C. DATE SIGNATURE

Dr. D. Karkkainen
Director of Environment & Safety
SECRETARY

Dr. D. Karkkainen

8/10

COMMENTS FOR OFFICIAL USE ONLY

C

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)

COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box - A or B below (mark one box only) to indicate whether this is the first application you are submitting for your revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your EPA I.D. Number in Item I above.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)

1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

2. NEW FACILITY (Complete item below)

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)

YR.	MO.	DAY
54	05	15

B. REVISED APPLICATION (place an "X" below and complete Item I above)

1. FACILITY HAS INTERIM STATUS

2. FACILITY HAS A RCRA PERMIT

III. PROCESSES - CODES AND DESIGN CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes describe the process (including its design capacity) in the space provided on the form (Item III-C).

B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.

1. **AMOUNT** - Enter the amount.

2. **UNIT OF MEASURE** - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the measure used. Only the units of measure that are listed below should be used.

PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO-CESS CODE	APPROPRIATE MEASURE FOR DESIGN CAP
Storage:			Treatment:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR METRIC TONS PER HOUR GALLONS PER DAY LITERS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS	OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)	T04	GALLONS PER DAY LITERS PER DAY
Disposal:					
INJECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET
LITERS	L	TONS PER HOUR	D	HECTARE-METER
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES
GALLONS PER DAY	U	LITERS PER HOUR	H	

EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 other can hold 400 gallons. The facility also has an Incinerator that can burn up to 20 gallons per hour.

C		DUP			I			
LINE NUMBER	A. PRO-CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY	R E V I S I O N N U M B E R	A. PRO-CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY	
		1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)				1. AMOUNT	2. UNIT OF MEASURE
X-1	S 0 2	600	G		5			
X-2	T 0 3	20	E		6			
1	S 0 2	1,630,000	G		7			
2	S 0 4	3,000,000	G		8			
3	T 0 4	1,200,000	U		9			
4					10			

T04 - Treatment of wastewater using system consists of 5 beds of carbon, each bed is 20,000 gallons. Use of T04 needs some explanation: Water from the dinitrobutyl phenol process is acidic. At times that acidic water is pumped to SO2 (30,000 gallons) from whence it is transported to off-site disposal by deep well injection; at that point it has an EPA hazardous waste number D002. At times the acidic water is neutralized with ammonia thus creating by product (NH4)2 SO4, a weak fertilizer solution. The weak fertilizer solution is pumped to SO2 (1,600,000 gallons) from whence it can be used for commercial purposes; however, most, perhaps all, is pumped through 2 beds of T04 (25,000 gallons per day) into SO4 (3,000,000 gallons). SO4 (3,000,000 gallons) also contains plant area rainwater run-off, spills and leaks, etc.; its EPA hazardous waste number is P020 and P123. Contents of SO4 (3,000,000 gallons) are pumped through 2 beds of T04 (1,200,000 gallons per day) and is then discharged as an NPDES point discharge.

IV. DESCRIPTION OF HAZARDOUS WASTES

- A. EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.
- B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in column A estimate the quantity of that waste that will be handled on basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will which possess that characteristic or contaminant.
- C. UNIT OF MEASURE - For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

Facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure about the appropriate density or specific gravity of the waste.

D. PROCESSES

- 1. PROCESS CODES: For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained to indicate how the waste will be stored, treated, and/or disposed of at the facility. For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of processes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that characteristic or toxic contaminant. Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).
- 2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- 1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- 2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
- 3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes which are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

WASTE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D1)
X-1	K 0 5 4	900	P	T 0 3 D S 0	
X-2	D 0 0 2	400	P	T 0 3 D S 0	
X-3	D 0 0 1	100	P	T 0 3 D S 0	
X-4	D 0 0 2				included with above

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

D. PROCESSES

ID No.	A. EPA HAZARD. WASTE NO. (enter code)			B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	1. PROCESS CODES (enter)							2. PROCESS DESCRIPTION (if a code is not entered in D(1))			
	10	11	12			13	14	15	16	17	18					
1	D	0	0	2	21,000	T	S	0	2						injection Off Site Disposal- Deep well	
2	P	0	2	0											Included in above	
3	P	0	2	0	1,524,000	T	S	0	2	S	0	4	T	0	4	
4	P	L	2	3												Included in above
5	K	D	3	1	3,650	T										Off site disposal-Hazardous Waste Landfill (no on site treatment, storage or disposal)
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																
25																
26																

EPA I.D. NO. (enter from page 1)

F M S D 9 9 0 7 1 4 0 8 1 T I A C
12 13 14 15 16 17 18 19 20 21 22 23

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment and disposal areas (see instructions for more detail).

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)

LONGITUDE (degrees, minutes, & seconds)

3 2 1 8 0 0
45 44 43 42 41 40

9 0 0 5 3 1
177 176 175 174 173 172

VIII. FACILITY OWNER

A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER				2. PHONE NO. (area code)			
3. STREET OR P.O. BOX				4. CITY OR TOWN		5. ST.	
6. ZIP CODE							

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type) Richard D. Karkkainen	B. SIGNATURE <i>John Bumpers</i>	C. DATE SIGNED 8-10-83
--	-------------------------------------	---------------------------

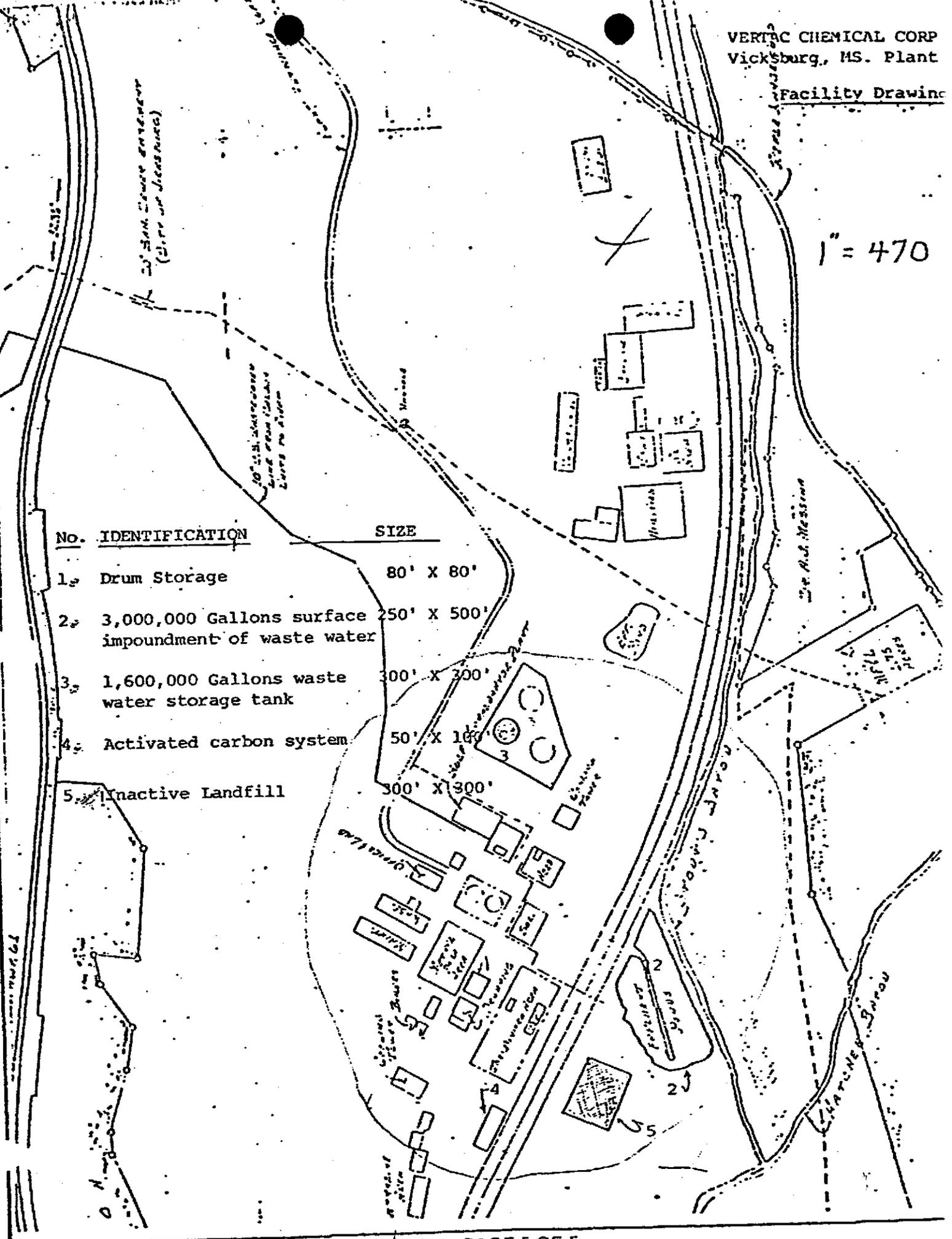
X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type) J. C. Bumpers SECRETARY	B. SIGNATURE <i>John Bumpers</i>	C. DATE SIGNED
---	-------------------------------------	----------------

1" = 470'

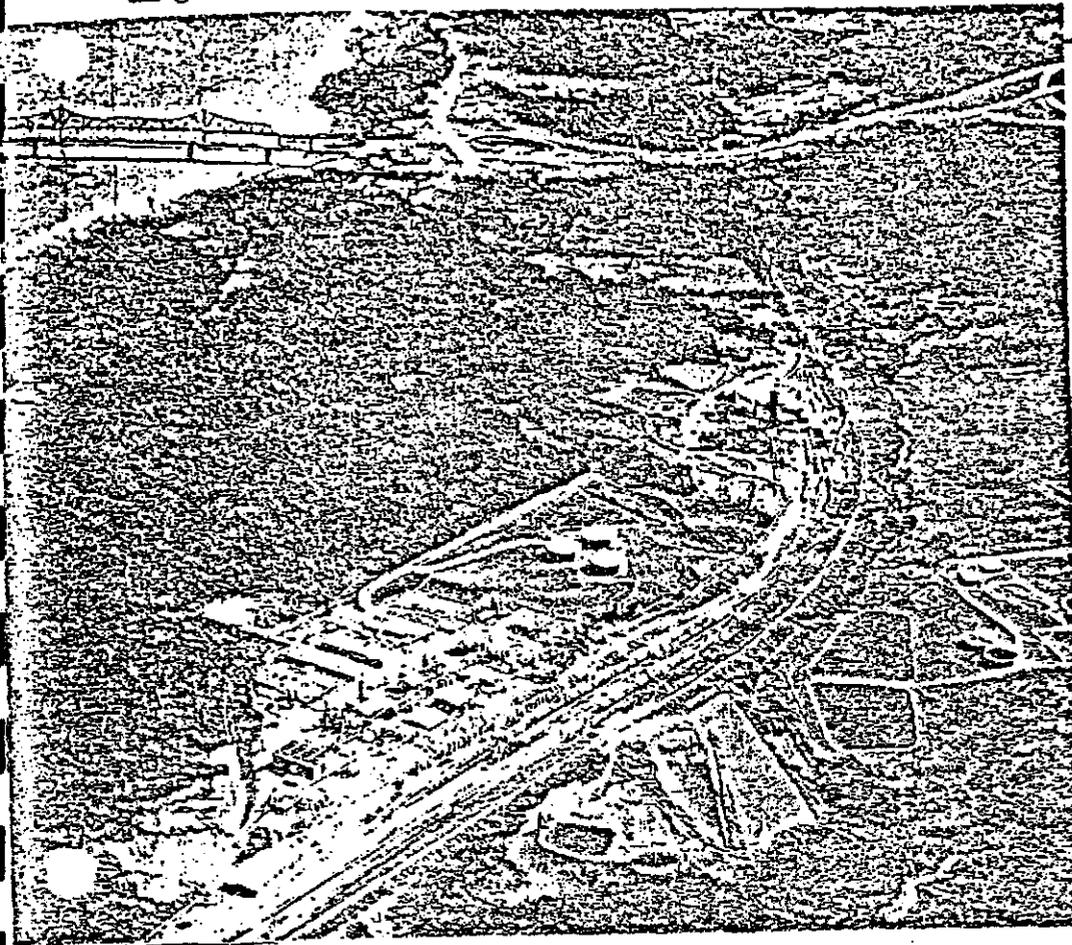
No.	IDENTIFICATION	SIZE
1	Drum Storage	80' X 80'
2	3,000,000 Gallons surface impoundment of waste water	250' X 500'
3	1,600,000 Gallons waste water storage tank	300' X 300'
4	Activated carbon system	50' X 100'
5	Inactive Landfill	300' X 300'





FORM 3
VERTAC CHEMICAL CORPORATION
24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

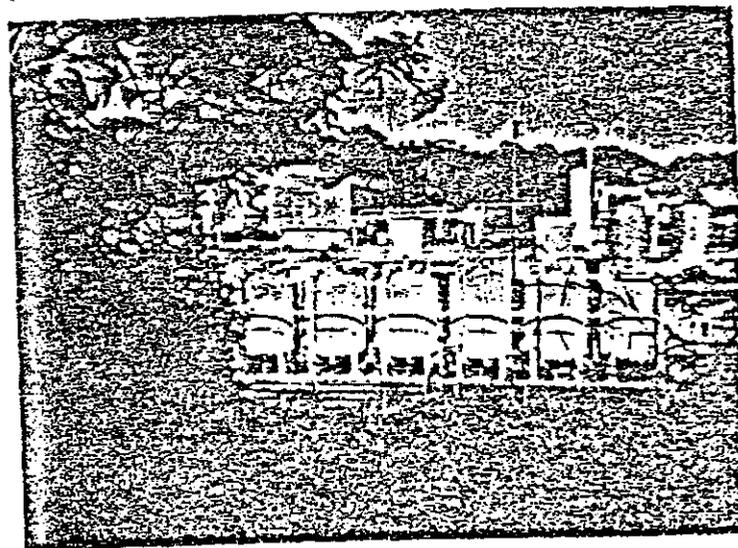
TECHNICAL DATA SHEET



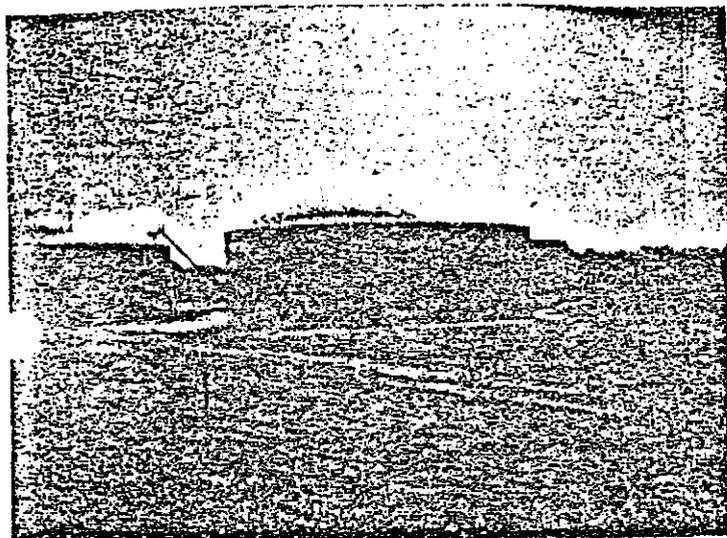
Vicksburg, Mississippi

Situated on a 600-acre site adjacent to the Mississippi River, the Vicksburg Plant products include nitric acid, potassium nitrate, nitrogen tetroxide, and numerous other agricultural chemicals, intermediates, and custom manufactured products.

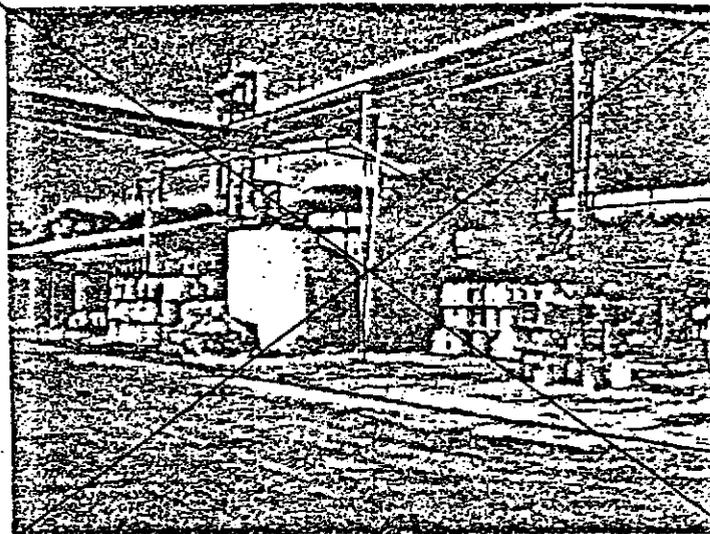
AERIAL
PHOTOGRAPH



ACTIVATED CARBON WASTE
TREATMENT SYSTEM 11-2-88



1,600,000 GAL WASTE WATER
 STORAGE TK. 11/21/83



DRUM STORAGE AREA 11/21/83
 OMIT
 ROK/Kathleen 8-10-83



3,000,000 GAL. SURFACE
 IMPOUNDMENT AREA 11/21/83



U.S. ENVIRONMENTAL PROTECTION AGENCY
 Revised GENERAL INFORMATION
 Part A Consolidated Permits Program
 of the "General Instructions" before starting.

EPA I.D. NUMBER
 MSD990714081

DRAFT

I. EPA I.D. NUMBER
 III. FACILITY NAME
 FACILITY MAILING ADDRESS
 VI. FACILITY LOCATION

MSD990714081
 Vertac Chemical Coporation
 Vicksburg Facility
 RIFLE RANGE RD
 VICKSBURG, MS 39190
 RIFLE RANGE RD
 VICKSBURG, MS 39190

24K
 5/31/83

INSTRUCTIONS
 been provided, if
 Review the infor
 it is incorrect, or
 correct data in
 slow. Also, if any
 ent (the area to
 lists the informat
 to provide it in
 low. If the label
 it need not compl
 (except VI-B wh
 rdless). Complete
 a provided. Refer
 tailed item desc
 authorizations (un

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MATCH 'X'			SPECIFIC QUESTIONS	MATCH 'X'		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)			X
C. Is this a facility which currently results in discharge to waters of the U.S. other than those described in A or B above? (FORM 2C)	X			D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)			X
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)			X
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)			X
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			X

III. NAME OF FACILITY
 1 SHIP VERTAC CHEMICAL CORP. VICKSBURG, MS PLANT

IV. FACILITY CONTACT
 A. NAME & TITLE (last, first, & title)
 2 Maraman, Bob, Chief Chemist
 B. PHONE (area code & no.)
 601 636 1231

V. FACILITY MAILING ADDRESS
 A. STREET OR P.O. BOX
 3 P. O. BOX 3
 B. CITY OR TOWN
 4 VICKSBURG,
 C. STATE & ZIP CODE
 MS 39190

VI. FACILITY LOCATION
 A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER
 RIFLE RANGE ROAD
 B. COUNTY NAME
 WASHINGTON
 C. CITY OR TOWN
 VICKSBURG

A. FIRST					B. SECOND						
7	2	8	6	5	(specify)	7	2	8	1	6	(specify)
Organics					Inorganics						
C. THIRD					D. FOURTH						
7	(specify)				7	(specify)					

VIII. OPERATOR INFORMATION

A. NAME										B. Is the name listed in Item VIII-A also the owner?	
VERTAC CHEMICAL CORPORATION										<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)										D. PHONE (area code & no.)										
F - FEDERAL	M - PUBLIC (other than federal or state)	P (specify)								E										
S - STATE	O - OTHER (specify)									A	9	0	1	7	6	7	6	8	5	1
P - PRIVATE										15	16	17	18	19	20	21	22	23	24	

E. STREET OR P.O. BOX									
Suite 2414, 5100 POPLAR AVE.									

F. CITY OR TOWN					G. STATE		H. ZIP CODE		IX. INDIAN LAND		
MEMPHIS					TN		3, 8, 1, 3, 7		Is the facility located on Indian lands?		
									<input type="checkbox"/> YES <input type="checkbox"/> NO		

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)										D. PSD (Air Emissions from Proposed Sources)									
C	T	I	MS0027995							C	T	I							
9	N									9	P								

B. UIC (Underground Injection of Fluids)										E. OTHER (specify)									
C	T	I								C	T	I	2, 7, 8, 0 - 0, 0, 0, 4, 1						
9	U									9									
										(specify) Air Pollution Control Permit									

C. RCRA (Hazardous Wastes)										E. OTHER (specify)									
C	T	I	MSD990714081							C	T	I							
9	R									9									
										(specify)									

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

PRODUCTION OF: (1) Pesticides (Dinitrobutyl phenol and mono sodium methane arsenate)
 (2) Potassium Nitrate, Chlorine, and Nitrogen Tetroxide

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and that, based on my inquiry of those persons immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for providing false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (Type or print)		B. SIGNATURE		C. DATE	
Richard D. Karkkainen Director of Environment & Safety				3/10/85	

COMMENTS FOR OFFICIAL USE ONLY

PA Form 1 (1-80) RE 209

INCLUDE PROCESS CAPACITY. INCLUDE PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T01"). FOR EACH PROCESS ENTERED HERE

T04 - Treatment of wastewater using activated carbon. The activated carbon system consists of 5 beds of carbon, each bed is 20,000 gallons.

Use of T04 needs some explanation:

Water from the dinitrobutyl phenol process is acidic. At times that acidic water is pumped to S02 (30,000 gallons) from whence it is transported to off-site disposal by deep well injection; at that point it has an EPA hazardous waste number D002. At times the acidic water is neutralized with ammonia thus creating by product $(NH_4)_2 SO_4$, a weak fertilizer solution. The weak fertilizer solution is pumped to S02 (1,600,000 gallons) from whence it can be used for commercial purposes; however, most, perhaps all, is pumped through 2 beds of T04 (25,000 gallons per day) into S04 (3,000,000 gallons). S04 (3,000,000 gallons) also contains plant area rainwater run-off, spills and leaks, etc.; its EPA hazardous waste number is P020 and P123. Contents of S04 (3,000,000 gallons) are pumped through 2 beds of T04 (1,200,000 gallons per day) and is then discharged as an NPDES point discharge.

IV. DESCRIPTION OF HAZARDOUS WASTES

- A. EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.
- B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. UNIT OF MEASURE - For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

<u>ENGLISH UNIT OF MEASURE</u>		<u>CODE</u>	<u>METRIC UNIT OF MEASURE</u>		<u>CODE</u>
POUNDS.....		P	KILOGRAMS.....		K
TONS.....		T	METRIC TONS.....		M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

- 1. PROCESS CODES: For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item I to indicate how the waste will be stored, treated, and/or disposed of at the facility. For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant. Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).
- 2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- 1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- 2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
- 3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the waste.

EXAMPLE OF HOW TO COMPLETE THIS FORM BY ENTERING THE NUMBERS X-1, X-2, AND X-3

one year of chrome plating from 1 to 100 gallons and in 1984, 1985, and 1986, the facility will produce 100 gallons of chrome plating solution. The facility will use 100 gallons of chrome plating solution only and there will be an estimated 200 pounds per year of chrome plating solution. The facility will use 100 gallons of chrome plating solution only and there will be an estimated 200 pounds per year of chrome plating solution.

LINE NO.	A. EPA HAZARDOUS WASTE NO. (4 digit)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESS CODES (enter)			
				1	2	3	4
X-1	100	900	P	T	0	3	0
X-2	100	100	P	T	0	3	0
X-3	100	100	P	T	0	3	0

WHS 0990714081

DUP 2 DUP

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

11 20 22	A. EPA HAZARD. WASTENO (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	1. PROCESS CODES (enter)				D. PROCESSES					
	23	24	25	26			27	28	29	30	31	32	2. PROCESS DESCRIPTION (if a code is not entered in D(1))			
1	D	0	0	2	21,000	T	S	0	2				injection Off Site Disposal- Deep well			
2	P	0	2	0									Included in above			
3	P	0	2	0	1,524,000	T	S	0	2	S	0	4	T	0	4	
4	P	1	2	3										Included in above		
5	K	0	3	1	3,650	T								Off site disposal-Hazardous Waste Landfill (no on site treatment, storage or disposal)		
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
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21																
22																
23																

EPA I.D. NO. (enter from page 1)

5	F	M	S	0	9	9	0	7	1	4	0	3	1	7	1	6
													6			

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment and disposal areas (see instructions for more detail).

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)

LONGITUDE (degrees, minutes, & seconds)

3	2	1	8	0	0
---	---	---	---	---	---

9	0	0	5	3	1
---	---	---	---	---	---

VIII. FACILITY OWNER

A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER

2. PHONE NO. (area code & no.)

--	--	--	--	--	--	--	--	--	--	--	--	--	--

3. STREET OR P.O. BOX

4. CITY OR TOWN

5. ST.

6. ZIP CODE

--	--	--	--	--	--	--	--	--	--	--	--

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this form and all attached documents, and that based on my inquiry of those individuals who furnished the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (last or type)

B. SIGNATURE

C. DATE

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this form and all attached documents, and that based on my inquiry of those individuals who furnished the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

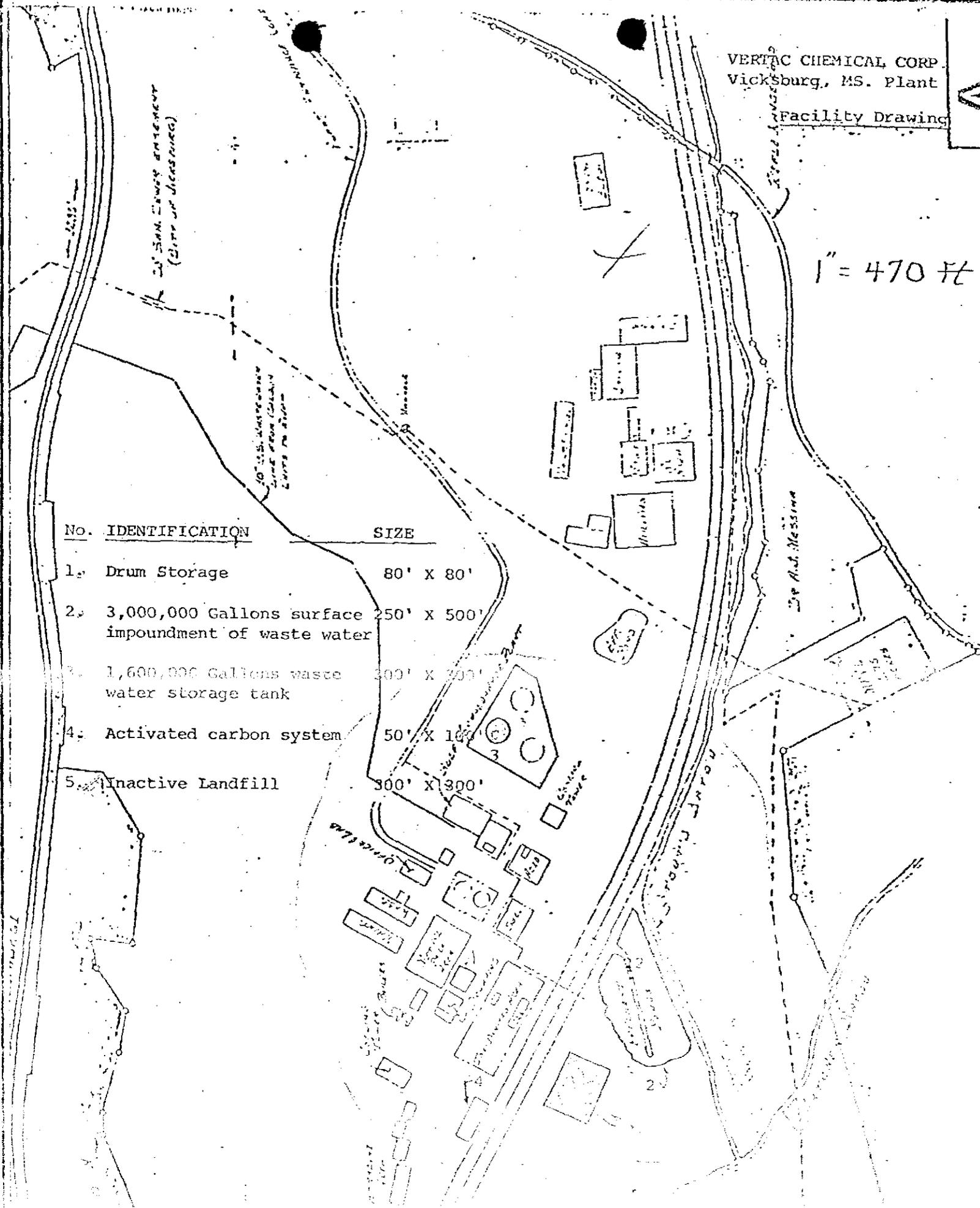
A. NAME (last or type)

B. SIGNATURE

C. DATE

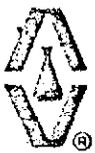
1" = 470 ft

No.	IDENTIFICATION	SIZE
1.	Drum Storage	80' X 80'
2.	3,000,000 Gallons surface impoundment of waste water	250' X 500'
3.	1,600,000 Gallons waste water storage tank	300' X 300'
4.	Activated carbon system	50' X 100'
5.	Inactive Landfill	300' X 300'



ITEM VL

FORM 3



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TECHNICAL DATA SHEET



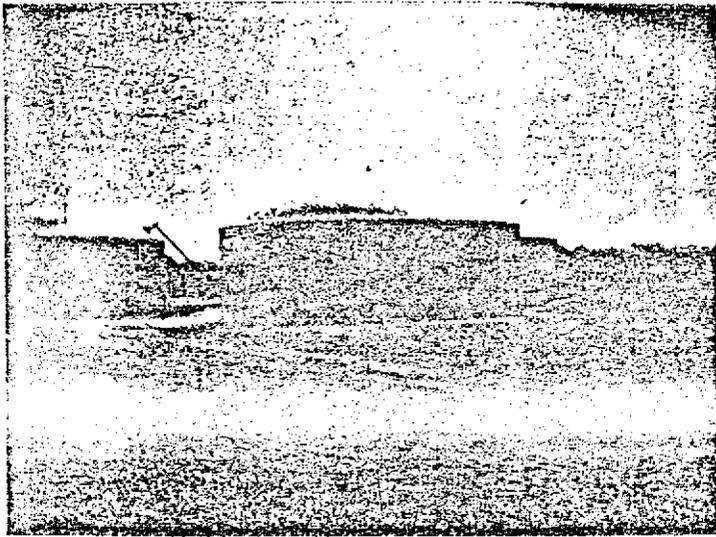
Vicksburg, Mississippi

Situated on a 600-acre site adjacent to the Mississippi River, the Vicksburg Plant products include nitric acid, potassium nitrate, chlorine nitrogen tetroxide, and numerous other agricultural chemicals, intermediates, and custom manufactured products.

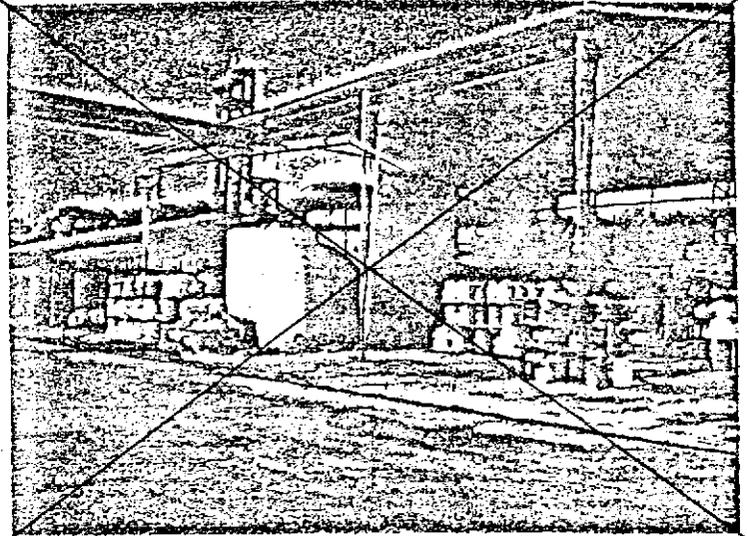
AERIAL
PHOTOGRAPH



ACTIVATED CARBON WASTE
TREATMENT SYSTEM

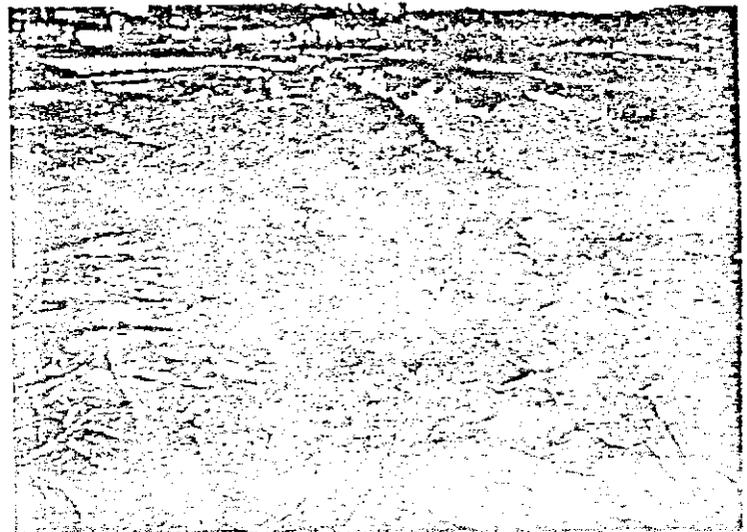


1,600,000 GAL WASTE WATER
STORAGE TK. 11/21/83



~~DRUM STORAGE AREA~~ 11/20

OMIT
RVR Kautzman 8-10-83



2,000,000 GAL WASTE WATER STORAGE TK.



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

REPLY TO: P. O. BOX 3
VICKSBURG, MS 39180
(601) 636-1231

September 10, 1981

EPA Region IV
RCRA Activities
345 Courtland Street, N.E.
Atlanta, GA 30365

ATTENTION: Aron Williams

SUBJECT: HAZARDOUS WASTE PERMIT EPA I.D. NO. MSD 990714081

RECEIVED
AT REGION IV
SEP 11 1981
000000

Dear Mr. Williams:

Please note that there were two requests on the subject, both dated 8-12-81 and received on 8-17-81 and 8-31-81.

One request stated that the amount and unit of measure required correction, and one request stated that process codes S01 and T01 were missing.

Re your request to Mr. Fred Ahlers, I am returning the corrected original application.

Very truly yours,

R. F. Maraman
R. F. Maraman
Chief Chemist

RFM/djw

Attachments

cc: F. Ahlers
Dick Karkkainen, Memphis
D. Madsen
File

EPA I.D. NUMBER (enter from page 1)													FOR OFFICIAL USE ONLY																							
W	M	S	D	9	9	0	7	1	4	0	8	1	W	DUP											2	DUP										

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

WASTE NO.	A. EPA HAZARD. WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	1. PROCESS CODES (enter)				D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))								
	23	24	25	26			27	28	29	30									
1	P	0	2	0	1,524,000	T	T	0	2	T	0	4	S	0	1	T	0	1	
2	P	0	4	7															included with above
3	P	0	7	1															included with above
4	U	0	4	4															included with above
5	U	2	2	4															included with above
6	U	2	3	9															included with above
7																			
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24																			
25																			
26																			

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

T04 Activated Carbon System

EPA I.D. NO. (enter from page 1)													
F	M	S	D	9	9	0	7	1	4	0	8	1	T/A/C
													3/6

CONSOLIDATED
UNITED BRANCH

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)						LONGITUDE (degrees, minutes, & seconds)					
3	2	1	8	0	0	0	9	0	0	5	3
43	44	45	46	47	48	73	74	75	76	77	78

VIII. FACILITY OWNER

A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER				2. PHONE NO. (area code & no.)			
3. STREET OR P.O. BOX				4. CITY OR TOWN		6. ZIP CODE	
5. ST.		3. ST.		4. ST.		5. ST.	

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type) R. A. Guidi	B. SIGNATURE <i>[Signature]</i>	C. DATE SIGNED 7/26/78
--	------------------------------------	---------------------------

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type) R. A. Guidi	B. SIGNATURE <i>[Signature]</i>	C. DATE SIGNED 7/26/78
--	------------------------------------	---------------------------

Please print or type in the unshaded areas only (fill-in areas are spaced for elite type, i.e., 12 characters/inch).

FORM 3 RCRA **EPA** **U.S. ENVIRONMENTAL PROTECTION AGENCY**
HAZARDOUS WASTE PERMIT APPLICATION
 Consolidated Permits Program
 (This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

F	M	S	D	9	9	0	7	1	4	0	8	1	3	1
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)

COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)

1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

2. NEW FACILITY (Complete item below.)

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)

YR.	MO.	DAY
5	4	05

YR.	MO.	DAY

FOR NEW FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN

B. REVISED APPLICATION (place an "X" below and complete Item I above)

1. FACILITY HAS INTERIM STATUS

2. FACILITY HAS A RCRA PERMIT

III. PROCESSES - CODES AND DESIGN CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (Item III-C).

B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.

1. AMOUNT - Enter the amount.
 2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:			Treatment:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS	OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)	T04	GALLONS PER DAY OR LITERS PER DAY
Disposal:					
INJECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	G
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)				1. AMOUNT	2. UNIT OF MEASURE (enter code)	
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	55,000	G		7				
2	T 0 1	20,000	U		8				
3	T 0 2	1,200,000	U		9				
4	T 0 4	1,200,000	U		10				

III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

Treatment of wastewater using activated carbon

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous wastes: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
- Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

FORM 1		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION <i>Consolidated Permits Program</i> <small>(Read the "General Instructions" before starting.)</small>	I. EPA I.D. NUMBER
GENERAL			MSD990714081

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

MSD990714081

WICKSBURG CHEMICAL CO INC
RIFLE RANGE RD
WICKSBURG, MS 39180

RIFLE RANGE RD
WICKSBURG, MS 39180

INSTRUCTIONS

been provided, affix. Review the information; if it is incorrect, cross out correct data in the slow. Also, if any of sent (the area to the lists: the information so provide it in the low. If the label is u need not complete (except V-B which r/face). Complete all n provided. Refer to tailed items descri- authorizations under l.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X"			SPECIFIC QUESTIONS	MARK "X"		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X			D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X			F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in-situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1. NAME: VERTAC CHEMICAL CORP. VICKSBURG, MS PLANT

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title): AHLERS, FRED, PLANT MANAGER

B. PHONE (area code & no.): 601 636 1231

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX: P. O. BOX 3

B. CITY OR TOWN: VICKSBURG, MS

C. STATE: MS

D. ZIP CODE: 39180

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: RIFLE RANGE ROAD

B. COUNTY NAME: WARREN

C. CITY OR TOWN: VICKSBURG

D. STATE: MS

E. ZIP CODE: 39180

F. COUNTY CODE (if known):

VII. SIC CODES (4-digit, in order of priority)

A. FIRST				B. SECOND			
7	2	8	6	5	(specify)	Organics	
7	2	8	1	6	(specify)	Inorganics	
C. THIRD				D. FOURTH			
7					(specify)		

VIII. OPERATOR INFORMATION

A. NAME							B. Is the name listed in Item VIII-A also the owner?		
VERTAC CHEMICAL CORPORATION							<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)					D. PHONE (area code & no.)				
F - FEDERAL	M - PUBLIC (other than federal or state)	P (specify)		901		767		6851	
S - STATE	O - OTHER (specify)								
P - PRIVATE									
E. STREET OR P.O. BOX									
SUITE 2414 5100 POPLAR AVE.									
F. CITY OR TOWN					G. STATE	H. ZIP CODE	IX. INDIAN LAND		
MEMPHIS					TN	38137	Is the facility located on Indian lands?		
							<input type="checkbox"/> YES <input type="checkbox"/> NO		

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Waters)				D. PSD (Air Emissions from Proposed Sources)					
9	N	M	S	0	2	7	9	9	5
E. UIC (Underground Injection of Fluids)				E. OTHER (specify)					
9	U			(specify) Air application including emissions survey submitted to state					
C. RCRA (Hazardous Wastes)				E. OTHER (specify)					
9	R			(specify)					

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

PRODUCTION OF: (1) Pesticides (Dinobutyl Phenol & Toxaphene)
 (2) Potassium Nitrate

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
R. A. GUIDI, VICE PRESIDENT		

COMMENTS FOR OFFICIAL USE ONLY

C	
---	--



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

CERTIFIED MAIL

September 3, 1981

RECEIVED

SEP 8 '81

DIV. 8 W.M. & C.

Mr. Paul C. Keith
RCRA Activities
Region VI
U.S. Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, Georgia 30365

Re: Application for a Hazardous Waste Permit
EPA I.D. No. MSD 990714081

Dear Mr. Keith:

Attached are revised pages 1 and 3 of Form 3 RCRA EPA
Form 3510-3(6-80). I regret the errors of misunderstanding.

Very truly yours,

Dick Karkkainen
Director of Environment & Safety

DK:ew

Attachments

CC: Mr. F. Ahlers
Mr. B. Maraman
~~Mr. David E. Lee~~ (Bureau of Pollution Control)

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)

COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)

1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

2. NEW FACILITY (Complete item below.)

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)

YR.	MO.	DAY
5	4	05

YR.	MO.	DAY

B. REVISED APPLICATION (place an "X" below and complete Item I above)

1. FACILITY HAS INTERIM STATUS

2. FACILITY HAS A RCRA PERMIT

III. PROCESSES - CODES AND DESIGN CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, describe the process (including its design capacity) in the space provided on the form (Item III-C).

B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.

1. AMOUNT - Enter the amount.

2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:			Treatment:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS	OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)	T04	GALLONS PER DAY OR LITERS PER DAY
Disposal:					
INJECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	
LITERS	L	TONS PER HOUR	D	HECTARE-METER	
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)				1. AMOUNT	2. UNIT OF MEASURE (enter code)	
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	55,000	G		7				
2	T 0 1	20,000	U		8				
3	T 0 2	1,200,000	U		9				
4	T 0 4	1,200,000	U		10				

EPA I.D. NUMBER (enter from page 1)													FOR OFFICIAL USE ONLY															
W	M	S	0	9	9	0	7	1	4	0	8	1	W	DUP										T	N	C	DUP	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26			

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

W Z O J Z	A. EPA HAZARD. WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES																			
	23	24	25	26			1. PROCESS CODES (enter)						2. PROCESS DESCRIPTION (if a code is not entered in D(1))													
							27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44		
1	K	0	9	6	1,524,000	T	T	0	2	T	0	4														
2	P	0	2	0																				included with above		
3	P	0	4	7																			"	"	"	
4	P	0	7	1																				"	"	"
5	P	1	2	3																				"	"	"
6	U	0	4	4																				"	"	"
7	U	2	1	1																				"	"	"
8	U	2	2	4																				"	"	"
9	U	2	3	9																				"	"	"
10	K	0	9	6	450,000	P	5	0	1															included with above		
11	P	0	2	0																				"	"	"
12	P	0	4	7																				"	"	"
13	P	0	7	1																				"	"	"
14	P	1	2	3																				"	"	"
15	U	0	4	4																				"	"	"
16	U	2	1	1																				"	"	"
17	U	2	2	4																				"	"	"
18	U	2	3	9																				"	"	"
19	P	0	2	0	30,000	T	T	0	1																	
20																										
21																										
22																										
23																										
24																										
25																										
26																										

Handwritten signature and date: EPA 9/3/81

FORM 1	U.S. ENVIRONMENTAL PROTECTION AGENCY	I. EPA I.D. NUMBER																										
	GENERAL INFORMATION <i>Consolidated Permits Program</i> <small>(Read the "General Instructions" before starting.)</small>	MSD990714081																										
GENERAL		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">F</td> <td style="width:10%;">M</td> <td style="width:10%;">S</td> <td style="width:10%;">D</td> <td style="width:10%;">9</td> <td style="width:10%;">9</td> <td style="width:10%;">0</td> <td style="width:10%;">7</td> <td style="width:10%;">1</td> <td style="width:10%;">4</td> <td style="width:10%;">0</td> <td style="width:10%;">8</td> <td style="width:10%;">1</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td> <td>13</td> </tr> </table>	F	M	S	D	9	9	0	7	1	4	0	8	1	1	2	3	4	5	6	7	8	9	10	11	12	13
F	M	S	D	9	9	0	7	1	4	0	8	1																
1	2	3	4	5	6	7	8	9	10	11	12	13																

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

MSD990714081

~~VICKSBURG CHEMICAL CO INC~~
RIFLE RANGE RD
VICKSBURG, MS 39180

RIFLE RANGE RD
VICKSBURG, MS 39180

RECEIVED
NOV 20 '80
GREEN MOUNTAIN

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column. If the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column. If the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X'			SPECIFIC QUESTIONS	MARK 'X'		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X			D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X			F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1 **SKIP** VERTAC CHEMICAL CORP. VICKSBURG, MS PLANT

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)	B. PHONE (area code & no.)
2 AHLERS, FRED, PLANT MANAGER	601 636 1231

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX	B. CITY OR TOWN
3 P. O. BOX 3	VICKSBURG,
C. STATE	D. ZIP CODE
MS	39180

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER	B. COUNTY NAME
5 RIFLE RANGE ROAD	WARREN
C. CITY OR TOWN	D. STATE
6 VICKSBURG	MS
E. ZIP CODE	F. COUNTY CODE (if known)
39180	

VII. SIC CODES (4-digit, in order of priority)

A. FIRST				B. SECOND			
7	2	8	6	5	(specify)	Organics	
7	2	8	1	6	(specify)	Inorganics	
C. THIRD				D. FOURTH			
7					(specify)		

VIII. OPERATOR INFORMATION

A. NAME										B. Is the name listed in Item VIII-A also the owner?	
VERTAC CHEMICAL CORPORATION										<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)								D. PHONE (area code & no.)			
F - FEDERAL		M - PUBLIC (other than federal or state)		P - PRIVATE		O - OTHER (specify)		P		A 901 767 6851	
E. STREET OR P.O. BOX											
SUITE 2414 5100 POPLAR AVE.											
F. CITY OR TOWN						G. STATE		H. ZIP CODE		IX. INDIAN LAND	
MEMPHIS						TN		38137		Is the facility located on Indian lands? <input type="checkbox"/> YES <input type="checkbox"/> NO	

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)				D. PSD (Air Emissions from Proposed Sources)			
9	N	M	S	0	0	2	7
9	U			9	P		
B. UIC (Underground Injection of Fluids)				E. OTHER (specify)			
9	U			9			
C. RCRA (Hazardous Wastes)				E. OTHER (specify)			
9	R			9			

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

PRODUCTION OF: (1) Pesticides (Dinobutyl Phenol & Toxaphene)
(2) Potassium Nitrate

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

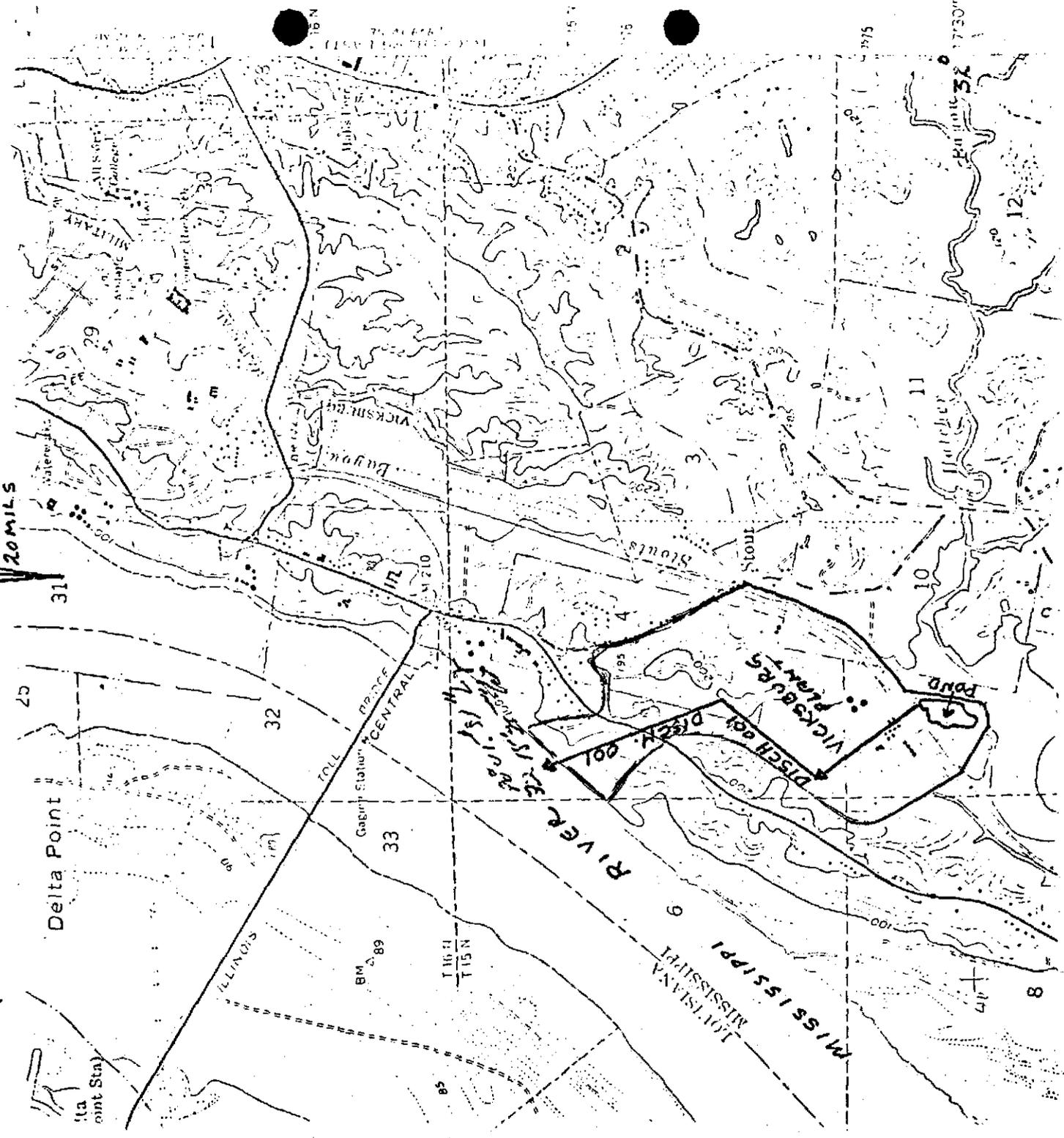
A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
R. A. GUIDI, VICE PRESIDENT	<i>R. A. Guidi</i>	Nov 18, 1980

COMMENTS FOR OFFICIAL USE ONLY

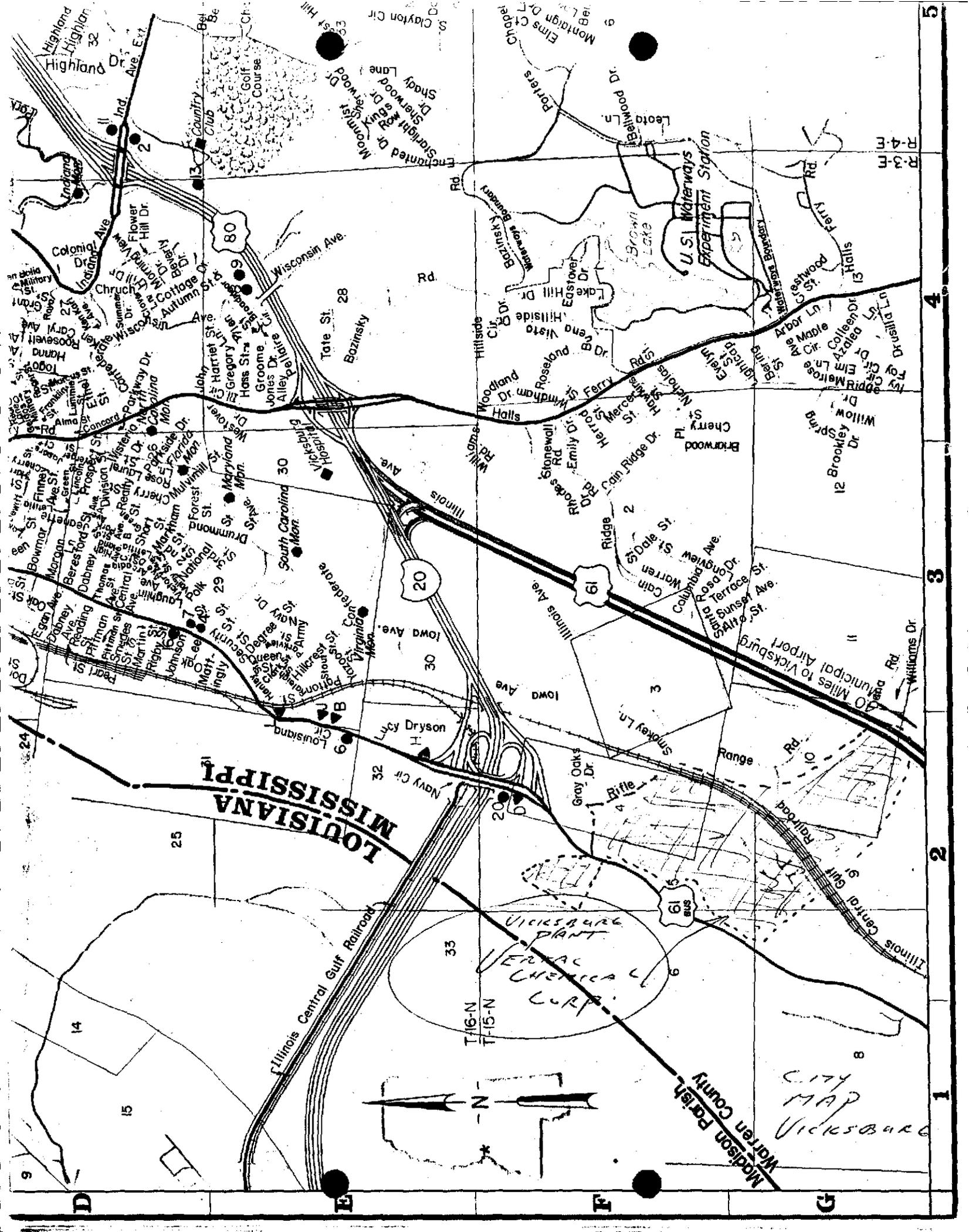
C	
C	

UTM GRID AND 1962 MAGNETIC NORTH.
DECLINATION AT CENTER OF SHEET.

$6\frac{1}{2}''$
1:100,000
1:100,000
1:100,000
20 MILES

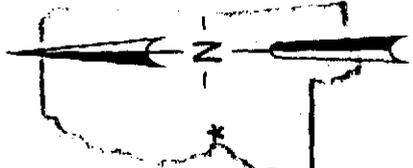


TOPOGRAPHIC
MAP



MISSISSIPPI

VICKSBURG PLANT
VERAL CHEMICAL CORP.



CITY MAP
VICKSBURG

Madison Parish
Warren County

10 Miles to Vicksburg Municipal Airport

U.S. Waterways Experiment Station

Illinois Central Gulf Railroad

20

19

80

30

30

61 bus

R-4-E
R-3-E

5
4
3
2
1

D

E

F

G

FORM 3 RCRA

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permit Program

(This information is required under Section 3006 of RCRA.)

I. EPA I.D. NUMBER

9	F	M	S	D	9	9	0	7	1	4	0	8	1	T/A
---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS
23	24	29

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)

1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

2. NEW FACILITY (Complete item below.)

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)

YR.	MO.	DAY
5	4	15

YR.	MO.	DAY

FOR NEW FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN

B. REVISED APPLICATION (place an "X" below and complete Item I above)

1. FACILITY HAS INTERIM STATUS

2. FACILITY HAS A RCRA PERMIT

III. PROCESSES - CODES AND DESIGN CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (Item III-C).

B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.

1. AMOUNT - Enter the amount.

2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:			Treatment:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS			
Disposal:					
INJECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER	OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)	T04	GALLONS PER DAY OR LITERS PER DAY
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

LINE NUMBER	A. PRO-CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY	LINE NUMBER	A. PRO-CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)				1. AMOUNT	2. UNIT OF MEASURE (enter code)	
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	55,000	G		7				
2	T 0 1	1,600,000	G		8				
3	T 0 2	3,000,000	G		9				
4	T 0 4	1,200,000	U		10				

III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR DESCRIBING OTHER PROCESSES (code "T" FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

Treatment of wastewater using activated carbon

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE - For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

<u>ENGLISH UNIT OF MEASURE</u>	<u>CODE</u>	<u>METRIC UNIT OF MEASURE</u>	<u>CODE</u>
POUNDS.....	P	KILOGRAMS.....	K
TONS.....	T	METRIC TONS.....	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES																	
	1. PROCESS CODES (enter)						2. PROCESS DESCRIPTION (if a code is not entered in D(1))																	
X-1	K	0	5	4	900	P	T	0	3	D	8	0												
X-2	D	0	0	2	400	P	T	0	3	D	8	0												
X-3	D	0	0	1	100	P	T	0	3	D	8	0												
X-4	D	0	0	2																				included with above

EPA I.D. NUMBER (enter from page 1)															FOR OFFICIAL USE										
W	M	S	D	9	9	0	7	1	4	0	8	1	T/A	C	W	1	2	T/A	C	1	2	DUP			
IV. DESCRIPTION OF HAZARDOUS WASTES (continued)																									
WASTE NO.	A. EPA HAZARD. WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES																		
	21	22	23	24			1. PROCESS CODES (enter)						2. PROCESS DESCRIPTION (if a code is not entered in D(1))												
1	P	0	2	0	1,524,000	T	T	0	2	T	0	4													
2	P	0	4	7									included with above												
3	P	0	7	1																					
4	U	0	4	4																					
5	U	2	2	4																					
6	U	2	3	9																					
7																									
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25																									
26																									

IV. DESCRIPTION OF HAZARDOUS WASTE *(continued)*

E. USE THIS SPACE TO LIST ADDITIONAL ACCESS CODES FROM ITEM D(1) ON PAGE

T04 Activated Carbon System

EPA I.D. NO. (enter from page 1)														
F	M	S	D	9	9	0	7	1	4	0	8	1	T/A	C
														6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)						LONGITUDE (degrees, minutes, & seconds)					
3	2	1	8	0	0	9	0	0	5	3	1
63	66	67	68	69	71	72	74	75	76	77	79

VIII. FACILITY OWNER

A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER				2. PHONE NO. (area code & no.)					
3. STREET OR P.O. BOX				4. CITY OR TOWN		5. ST.		6. ZIP CODE	

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type) R. A. Guidi	B. SIGNATURE <i>R. A. Guidi</i>	C. DATE SIGNED Nov. 18, 1980
--	------------------------------------	---------------------------------

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

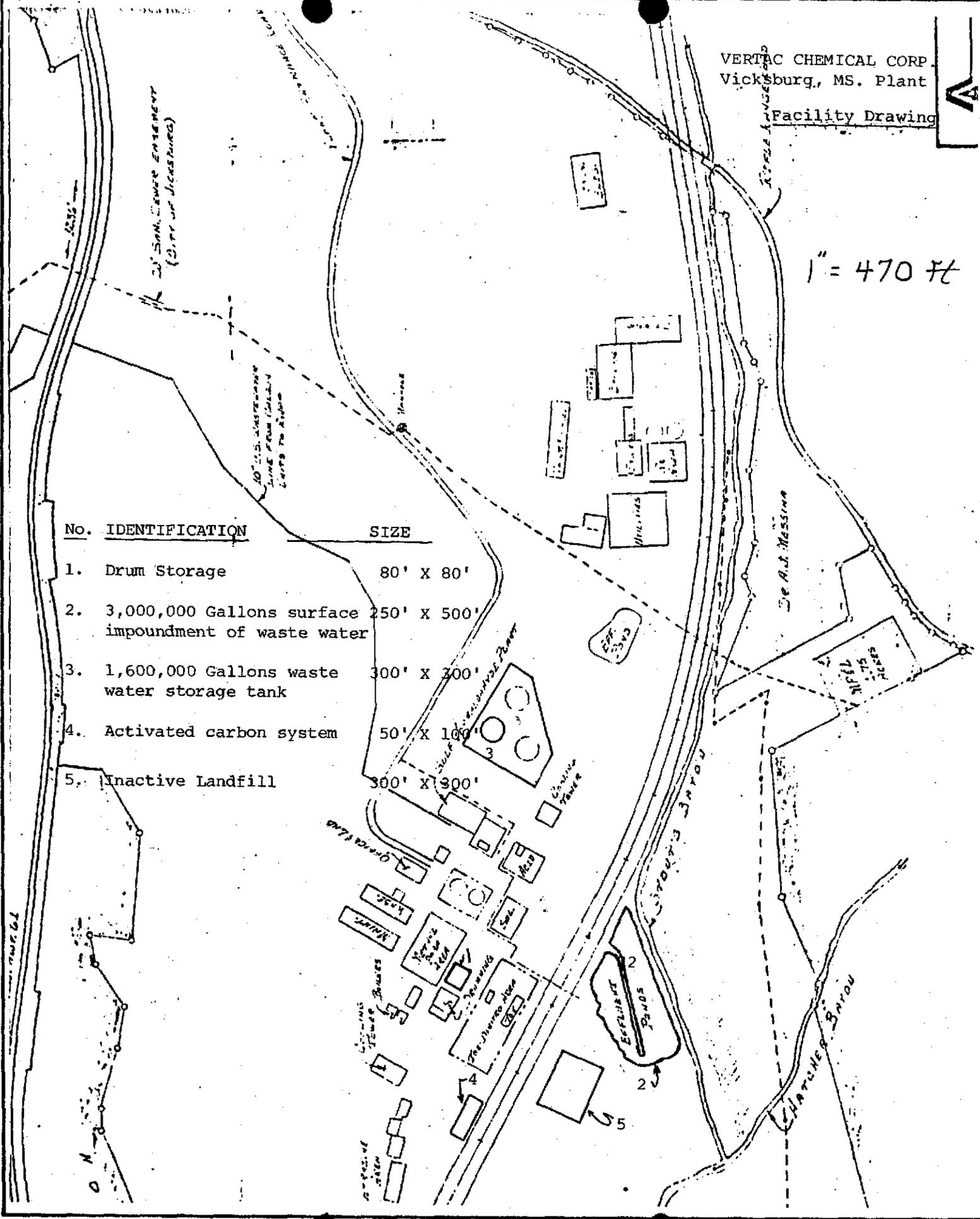
A. NAME (print or type) R. A. Guidi	B. SIGNATURE <i>R. A. Guidi</i>	C. DATE SIGNED Nov 18, 1980
--	------------------------------------	--------------------------------

V. FACILITY DRAWING (see page 4)

VERTAC CHEMICAL CORP.
Vicksburg, MS. Plant
Facility Drawing

1" = 470 ft

No.	IDENTIFICATION	SIZE
1.	Drum Storage	80' X 80'
2.	3,000,000 Gallons surface impoundment of waste water	250' X 500'
3.	1,600,000 Gallons waste water storage tank	300' X 300'
4.	Activated carbon system	50' X 100'
5.	Inactive Landfill	300' X 300'

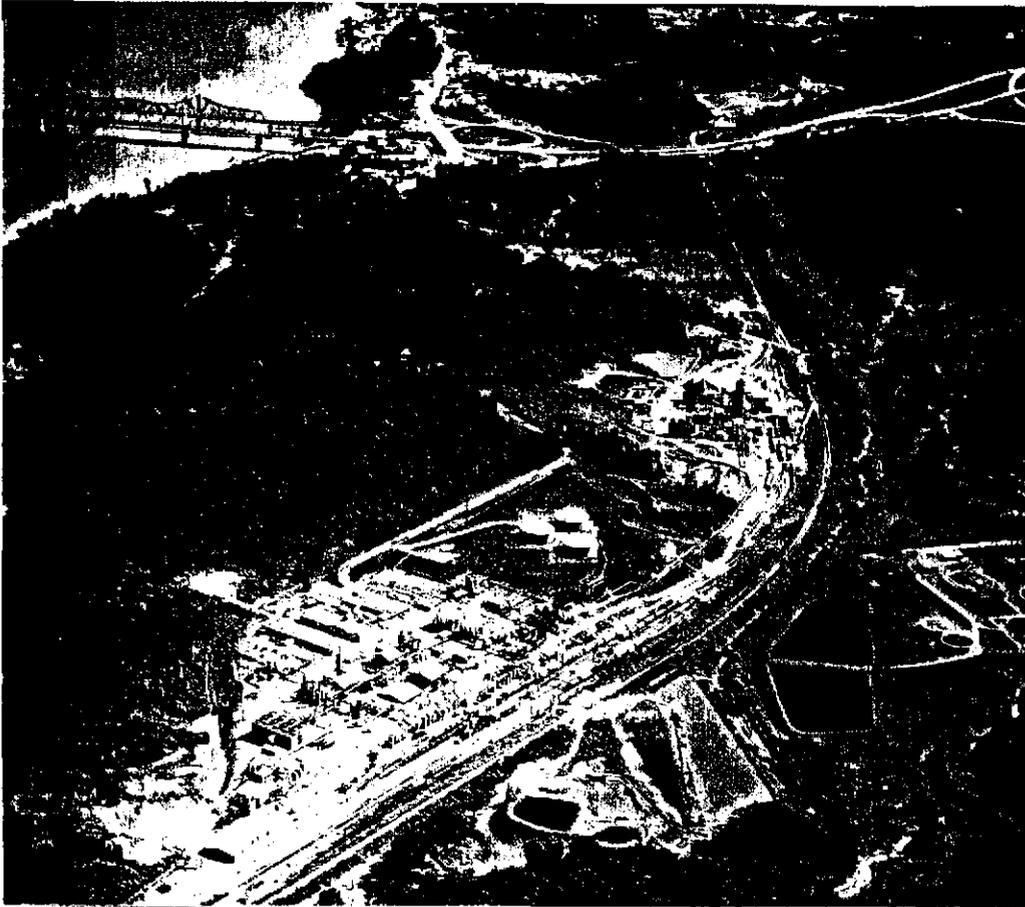




ITEM VI
FORM 3
VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TECHNICAL DATA SHEET



Vicksburg, Mississippi

Situated on a 600-acre site adjacent to the Mississippi River, the Vicksburg Plant products include nitric acid, potassium nitrate, chlorine, nitrogen tetroxide, and numerous other agricultural chemicals, intermediates, and custom manufactured products.

AERIAL
PHOTOGRAPH



ACTIVATED CARBON WASTE
TREATMENT SYSTEM

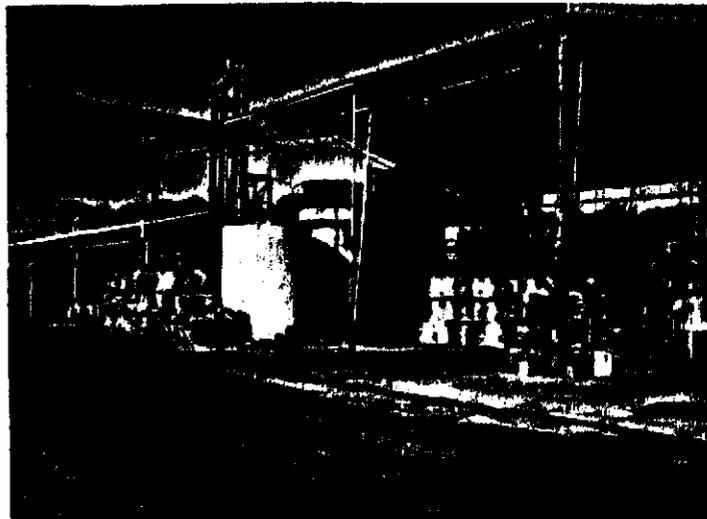


VERTAC CHEMICAL CORPORATION
24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TECHNICAL DATA SHEET



1,600,000 GAL WASTE WATER
STORAGE TK. 11/80



DRUM STORAGE AREA 11/80



3,000,000 GAL SURFACE
IMPOUNDMENT AREA 11/80

FORM
1
GENERAL



ENVIRONMENTAL PROTECTION AGENCY
GENERAL INFORMATION
Consolidated Permits Program
(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER
MSD990714081

LABEL ITEMS
I. EPA I.D. NUMBER
III. FACILITY NAME
V. FACILITY MAILING ADDRESS
VI. FACILITY LOCATION

MSD990714081
WICKSBURG CHEMICAL CO. INC.
RIFLE RANGE RD
WICKSBURG, MS 39180
RIFLE RANGE RD
WICKSBURG, MS 39180

RECEIVED
EPA REGION I
JAN 15 1990

INSTRUCTIONS
been provided; affix
Review the information
it is incorrect, cross-
correct data in the
slow. Also, if any of
sent (the area to the
face the information
provide it in the
low. If this label is
is need, not complete
(except VI-B, which
release). Complete all
is provided. Refer to
filled from district
authorizations under

II. POLLUTANT CHARACTERISTICS
INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental forms listed in the parentheses following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X"			SPECIFIC QUESTIONS	MARK "X"		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)			X
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X			D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)			X
E. Does or will this facility treat, store, or dispose of hazardous waste? (FORM 3)	X			F. Do you or will you inject at this facility industrial or municipal effluents below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)			X
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuels, or recovery of geothermal energy? (FORM 4)			X
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			X

III. NAME OF FACILITY
1. VERTAC CHEMICAL CORP. WICKSBURG, MS PLANT

IV. FACILITY CONTACT
A. NAME & TITLE (last, first, & title): AHLERS, FRED, PLANT MANAGER
B. PHONE (area code & no.): 601 636 1231

V. FACILITY MAILING ADDRESS
A. STREET OR P.O. BOX: P. O. BOX 3
B. CITY OR TOWN: WICKSBURG, MS
C. STATE: MS
D. ZIP CODE: 39180

VI. FACILITY LOCATION
A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: RIFLE RANGE ROAD
B. COUNTY NAME: WARREN
C. CITY OR TOWN: WICKSBURG
D. STATE: MS
E. ZIP CODE: 39180
F. COUNTY CODE (if known):

VII. SIC CODES (4-digit, in order of priority)

A. FIRST		B. SECOND	
7 2 8 6 5 (specify)	Organics	7 2 8 1 6 (specify)	Inorganics
C. THIRD		D. FOURTH	
7 (specify)		7 (specify)	

VIII. OPERATOR INFORMATION

A. NAME			B. Is the name listed in Item VIII-A above the owner?		
VERTAC CHEMICAL CORPORATION			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other" specify.)			D. PHONE (area code & no.)		
F - FEDERAL	M - PUBLIC (other than federal or state)	P (specify)	9 0 1	7 6 7	6 8 5 1
S - STATE	O - OTHER (specify)				
P - PRIVATE					
E. STREET OR PO BOX					
SUITE 2414 5100 POPLAR AVE.					
F. CITY OR TOWN		G. STATE	H. ZIP CODE		
MEMPHIS		TN	3 8 1 3 7		
			IX. INDIAN LAND		
			Is the facility located on Indian lands?		
			<input type="checkbox"/> YES <input type="checkbox"/> NO		

X. EXISTING ENVIRONMENTAL PERMITS

A. PERMITS (Discharges to Surface Water)		B. PERMITS (Air Emissions from Proposed Sources)	
MS0027995			
C. PERMITS (Underground Injection of Fluids)		D. OTHER (specify)	
		(specify) Air application including emissions survey submitted to state	
E. PERMITS (Hazardous Waste)		F. OTHER (specify)	
		(specify)	

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

PRODUCTION OF: (1) Pesticides (Dinobutyl Phenol & Toxaphene)
 (2) Potassium Nitrate

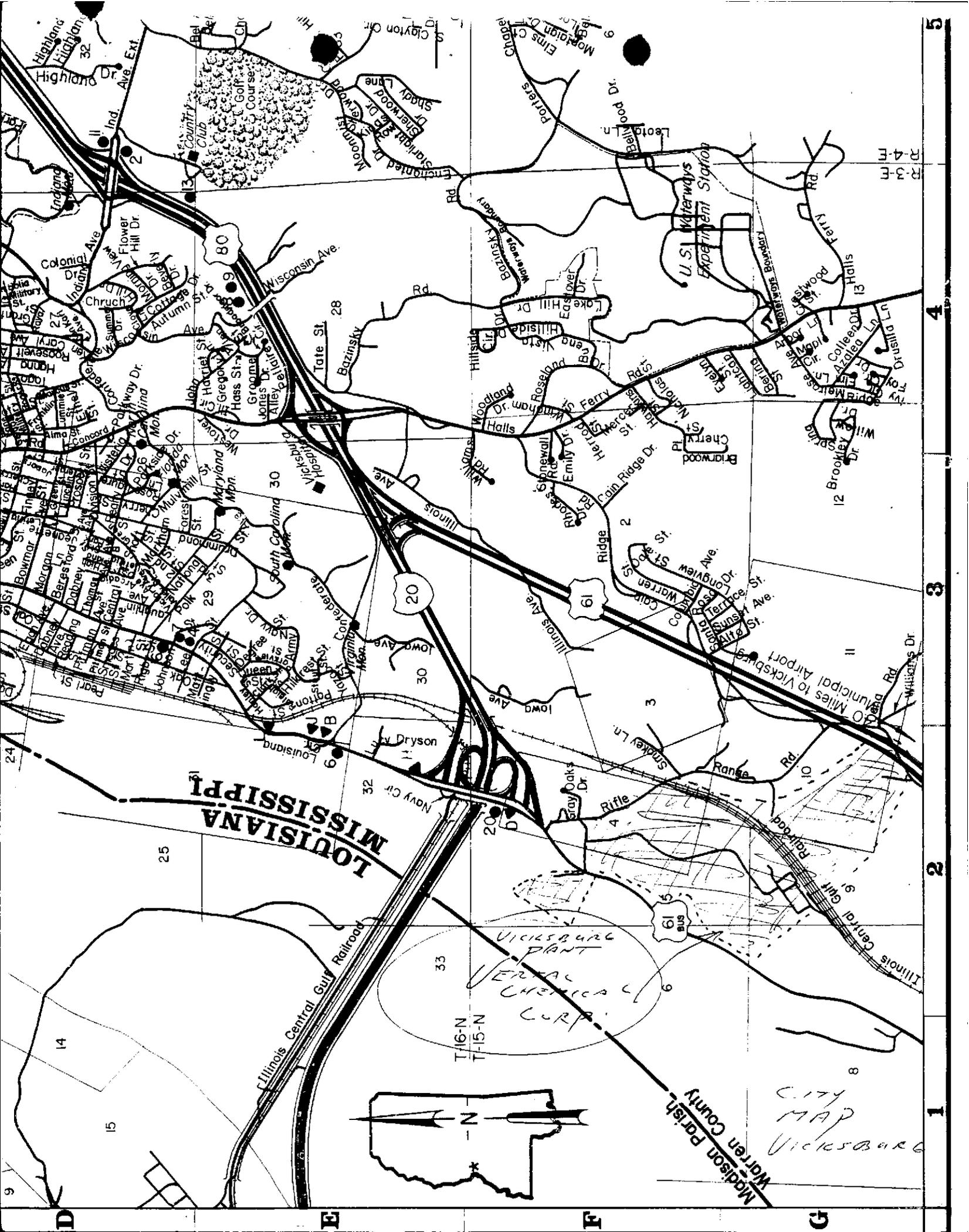
XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
R. A. GUIDI, VICE PRESIDENT		

COMMENTS FOR OFFICIAL USE ONLY

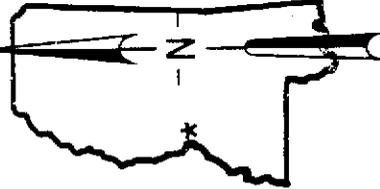
C	
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LOUISIANA
MISSISSIPPI

VICKSBURG
PLANT
VERTICAL
CHEMICAL
CORP.

Madison Parish
Warren County
CITY
MAP
VICKSBURG



5
4
3
2
1

D E F G

R-4-E
R-3-E

20 Miles to Vicksburg
Municipal Airport

61 BUS

T-16-N
T-15-N

NAVY CR.

Illinois Central Gulf Railroad

Range Rd.

Rifle

Gray Oaks Dr.

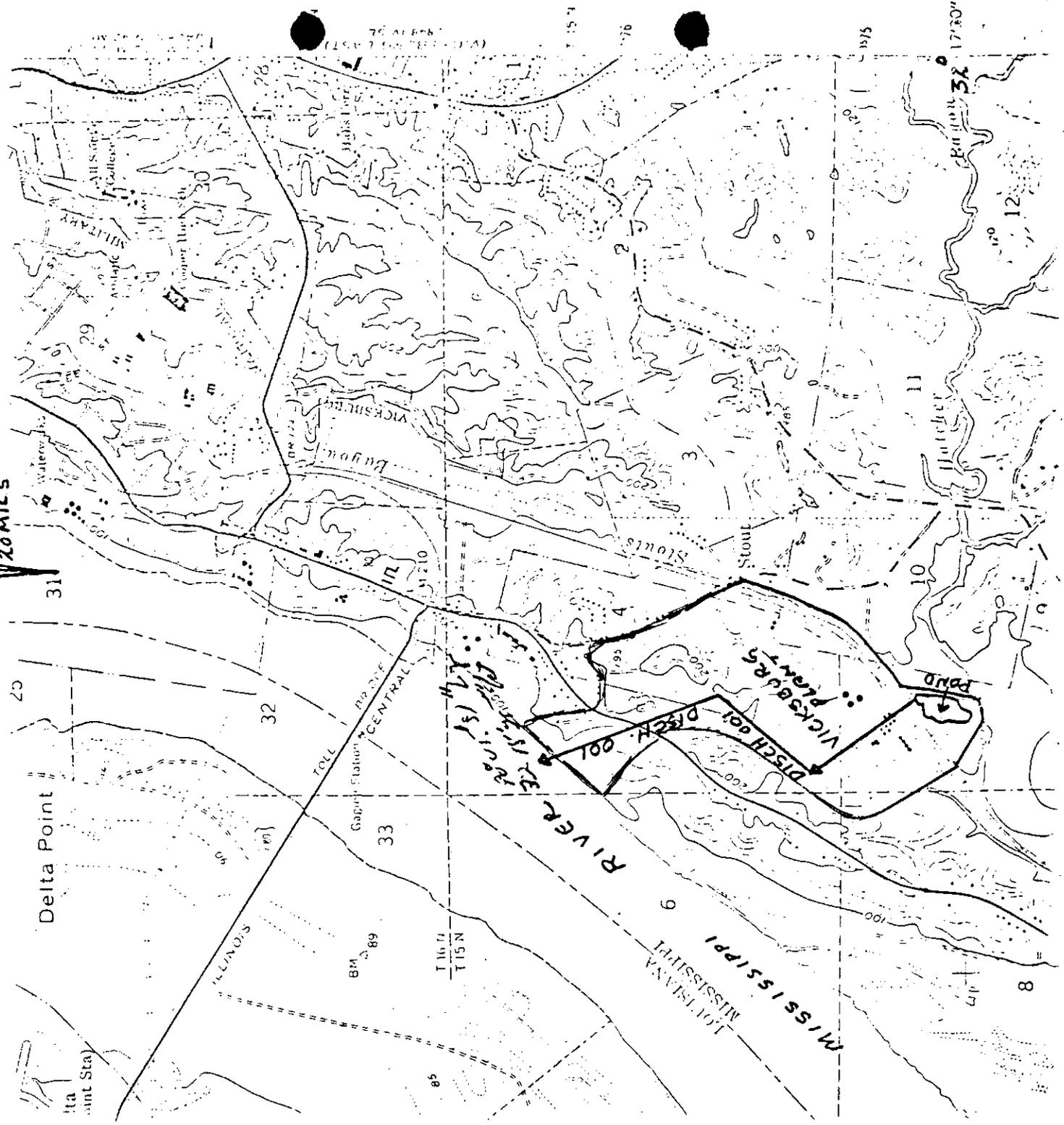
Lowd Ave.

12 Brookley Dr.

13 Halls

UTM GRID AND 1962 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET.

6 1/2" / 116 MILS
1° 06' / 20 MILS



Топографический
КАРТА

FORM 3
EPA
RCRA

U.S. ENVIRONMENTAL PROTECTION AGENCY
HAZARDOUS WASTE PERMIT APPLICATION
Consolidated Permits Program
(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

S	F	M	S	D	9	9	0	7	1	4	0	8	1	T/A/C
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr. mo. & day)	COMMENTS
23	24	25

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION (place an "X" below and provide the appropriate date)

1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)

2. NEW FACILITY (Complete item below.)

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)

YR.	MO.	DAY
5	4	15
73	74	75

FOR NEW FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN

YR.	MO.	DAY
73	74	75

B. REVISED APPLICATION (place an "X" below and complete Item I above)

1. FACILITY HAS INTERIM STATUS

2. FACILITY HAS A RCRA PERMIT

III. PROCESSES - CODES AND DESIGN CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (Item III-C).

B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.

1. AMOUNT - Enter the amount.

2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:			Treatment:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS		T04	GALLONS PER HOUR OR LITERS PER HOUR
Disposal:			OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)		
INJECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-FOOT (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

5
C
T/A/C
DUP
I

LINE NUMBER	A. PRO-CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY	LINE NUMBER	A. PRO-CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY		FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)				1. AMOUNT	2. UNIT OF MEASURE (enter code)	
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	55,000	G		7				
2	T 0 1	1,600,000	G		8				
3	T 0 2	3,000,000	G		9				
4	T 0 4	1,200,000	U		10				

www from DNDP production

III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR DESCRIBING OTHER PROCESSES (code "T") FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

Treatment of wastewater using activated carbon

IV. DESCRIPTION OF HAZARDOUS WASTES

- A. EPA HAZARDOUS WASTE NUMBER** — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.
- B. ESTIMATED ANNUAL QUANTITY** — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. UNIT OF MEASURE** — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

- 1. PROCESS CODES:**
 For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
 For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.
 Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).
- 2. PROCESS DESCRIPTION:** If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

EPA I.D. NUMBER (enter from page 1)													FOR OFFICIAL USE ONLY														
W	M	S	D	9	9	0	7	1	4	0	8	1	T/A	C	1	1	W	DUP						T/A	C	2	DUP
IV. DESCRIPTION OF HAZARDOUS WASTES (continued)																											
LINE NO.	A. EPA HAZARD. WASTENO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE				C. UNIT OF MEASURE (enter code)		1. PROCESS CODES (enter)								2. PROCESS DESCRIPTION (if a code is not entered in D(1))								
	22	23	24	25	26	27	28	29	30	31	27	28	27	28	27	28	27	28									
1	P	0	2	0	1,524,000				T		T	0	2	T	0	4											
2	P	0	4	7															included with above								
3	P	0	7	1																							
4	U	0	4	4																							
5	U	2	2	4																							
6	U	2	3	9																							
7																											
8																											
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24																											
25																											
26																											

IV. DESCRIPTION OF HAZARDOUS WASTE (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE

T04 Activated Carbon System

EPA I.D. NO. (enter from page 1)

F	M	S	D	9	9	0	7	1	4	0	8	1	T/A	C
														6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)

LONGITUDE (degrees, minutes, & seconds)

3 2 1 8 0 0

9 0 0 5 3 1

VIII. FACILITY OWNER

A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER

2. PHONE NO. (area code & no.)

3. STREET OR P.O. BOX

4. CITY OR TOWN

5. ST.

6. ZIP CODE

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)

B. SIGNATURE

C. DATE SIGNED

R. A. Guidi

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)

B. SIGNATURE

C. DATE SIGNED

R. A. Guidi

(a) (13) Closure and Post Closure Plan

I-1a
I-1b
I-1c
I-1d
I-1e
I-2

The first closure and post closure plan was submitted on October 13, 1981. A revised plan based on new information was submitted on March 1, 1983. The new information was the fact that 13,000 cubic yards of dirt had been added to existing dikes and additionally that fill dirt from the old landfill area would not be made available since remedial work would be performed on the landfill and the area completely, finally and permanently closed out in the late summer of 1983. In addition, the elevation of the dike on the surface impoundment was raised to 109.5 feet. That work was completed in November, 1983. This closure plan is, therefore, a 1984 closure plan.

Closure Schedule:

It is factually not anticipated that closure will occur. Closure is purely and simply a hypothetical presumption made necessary by regulations.

It is hypothetically assumed that closure will occur in the year 2014. The surface impoundment does not now contain hazardous liquid wastes. The sediment on the bottom of the pond may be a hazardous waste. The maximum inventory of hazardous waste is 6000 cubic yards. Conceivably by the year 2014 the toxic elements of the sediment may have migrated in part to the waste water, been adsorbed on carbon and destroyed by thermal incineration. Minimum hazardous waste inventory is zero. Once hypothetical closure takes place it will take less than 4 weeks to implement.

Closure Performance Standard:

The closure plan is based on the permanent and safe care of 6000 cubic yards of sediment that may or may not be hazardous. Permanent care will be established by covering the sediment and keeping it dry, thus eliminating the potential for environmental transport.

Decontamination:

There is no facility equipment that is contaminated.

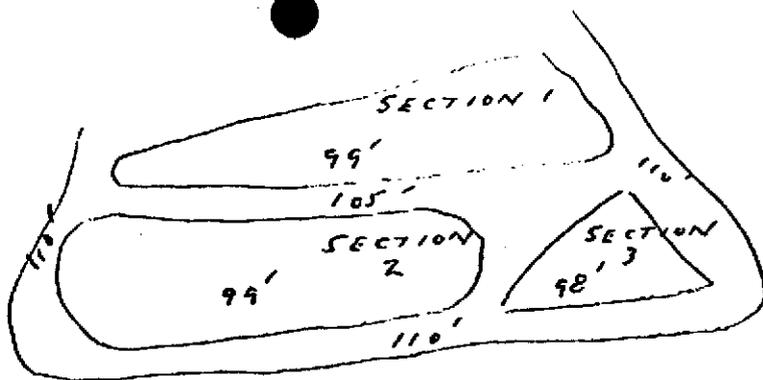
Final Closure Activities (See Sketch a(13)-III-(1))

1. Dredge the sediment from the bottom of sections 1 and 2 into section 3. Section 3 is roughly a 200 ft. by 200 ft. triangle with bottom elevation 98' and top elevation 110'. Its capacity is 1500 yd³ per foot. Addition of 6000 yd³ will raise the bottom elevation to 102'.
2. Cap the sediment by using the dirt comprising the finger dike between sections 1 and 2. That section contains about 6000 yd³ so the sediment would be capped by 4' and the bottom would be at elevation 106'.
3. Remove the top 5 feet of the south and east exterior dike around sections 1 and 2 for the final cap of section 3.
4. With a bulldozer fold over the remaining south and east exterior dikes of sections 1 and 2. Sections 1 and 2 will no longer be hazardous waste areas.
5. Fertilize and plant grass seed.
6. Obtain certification that execution of the plan was adequate.

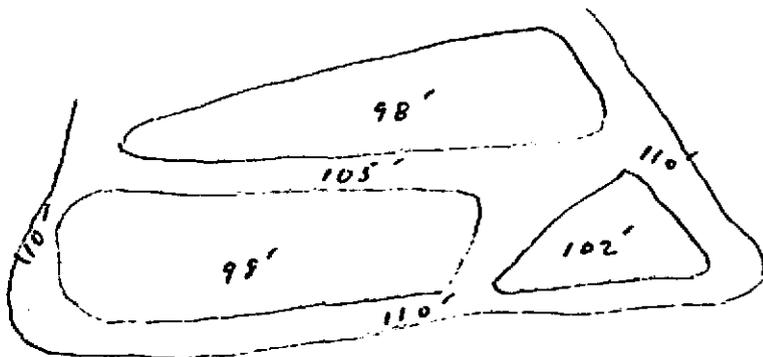
Post Closure Activities

1. As post closure care establish grass and continue to mow the grass plus fill in any erosional areas that develop. Maintain the wells.
2. Annually sample and analyze groundwater from 3 monitoring wells for 3 years then once every 3 years for the remaining 27 years.

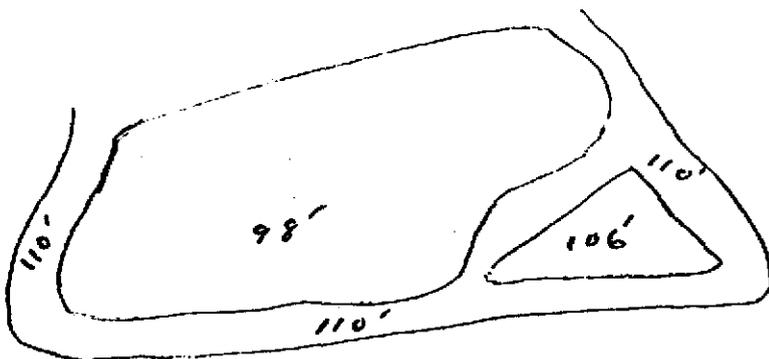
Functioning of the monitoring wells is ensured by providing a trust fund to ensure they will be sampled.



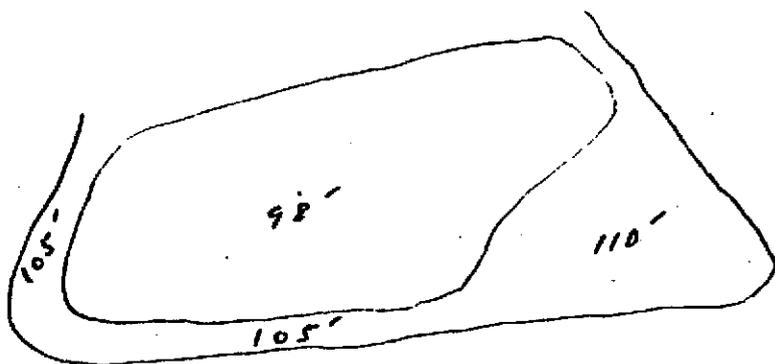
AS IS



STEP 1

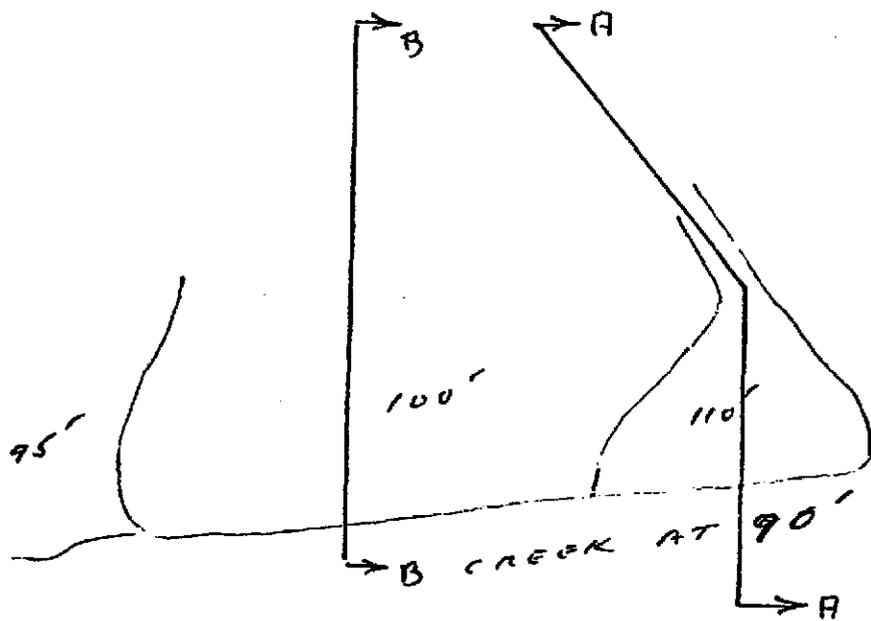


STEP 2



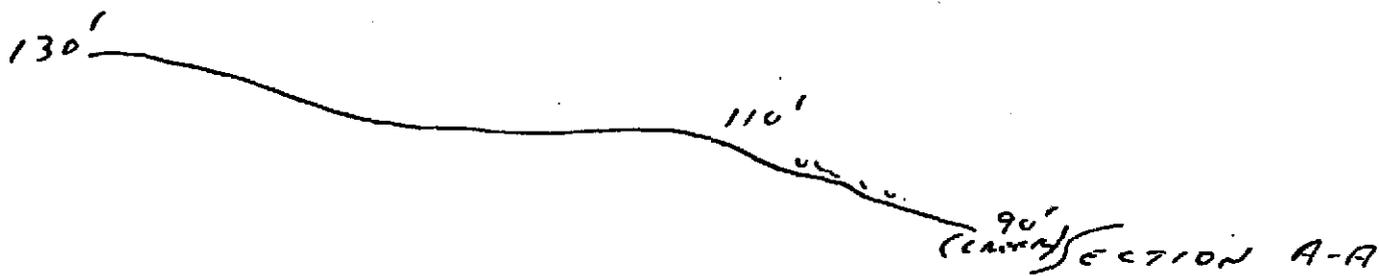
STEP 3

SKETCH
 a(13) III-1



STEP 4

FINAL - PLAN VIEW



FINAL SECTIONS

SKETCH
 a(13) III - 1

a(14)

I - 3 Notice in Déed

We need to consult with the Bureau of Pollution Control prior to making a permanent notation in the deed. I assume the closed out landfill should be on the deed even though it is not pertinent to this permit application. For reasons noted in this permit application, I assume the 16,000 gallon tank and tank V-3 should not be recorded. I assume the surface impoundment should be noted but should it be noted "as is" or "as hypothetically closed out".

- a(15) Closure Cost Estimate
- a(16) Post Closure Cost Estimate
- I - 4
- I - 6

Closure (see closure discussion)

1. 6000 yd ³ at \$1/yd ³ - dredge	\$ 6,000
2. 6000 yd ³ at \$1/yd ³ - dredge	6,000
3. 6000 yd ³ at \$.80/yd ³ - bulldoze	4,800
4. 20,000 yd ³ at \$.80/yd ³ - bulldoze	16,000
5. Plant grass	200
6. Obtain certification 10 hrs at \$50/hr	<u>500</u>
	\$33,500

Post Closure (see post closure discussion)

1. 20 hours per year at \$10/hr for 30 years	\$ 6,000
2. 36 analyses over 30 years at \$250/analysis	<u>9,000</u>
	\$15,000

Total closure plus post closure \$48,500

a(15) Closure Trust Fund

a(16) Post Closure Trust Fund

I-5a

The closure will not take place in 10 years. The hypothetical presumption of closure is that it will take place in the year 2014. Permits are renewable.

FILE COPY

November 14, 1985

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor, 5100 Poplar
Memphis, Tennessee 38111

Mr. John G. Hill
Vertac Chemical Corporation
P. O. Box 3
Vicksburg, Mississippi 39180

Gentlemen:

- Re: Part B Application

In a recent review of portions of your RCRA Part B Permit Application we found several deficiencies that must be addressed, and have the following comments and requests for additional information:

Closure and Post-Closure Plan

1. The Closure Plan does not state to what levels the equipment used in closure will be decontaminated. It is also necessary to submit the analysis procedures that will be used to demonstrate that the decontamination levels have been reached.
2. The Closure Plan must specify the sampling and analysis techniques for the samples taken from the sediment, base, and sidewalls of the ponds prior to the start of closure activities.
3. Equipment associated with the operation of the impoundment such as discharge and inlet pipes, pumps, and hoses are to be decontaminated or disposed of. If the equipment is to be decontaminated and reused the method of decontamination must be specified along with the method of demonstrating that decontamination is successful.
4. The post-closure plan lacks the required maintenance and inspection procedures and schedules for the groundwater monitoring system. Frequency of inspections should be stated.
5. The system of drain pipes and slide gates used to isolate the site during a 100 year flood must be inspected regularly.
6. The name, address, and phone number of the person responsible for maintaining and updating of the post-closure plan both prior to, and during post-closure must be included.

Mr. Dick Karkkainen and
Mr. John G. Hill
November 14, 1985
Page -2-

7. In accordance with MHW 264.119, the survey plat submitted to local land use authority and the EPA Regional Administrator must be prepared and certified by a professional land surveyor. In addition, the locations and dimensions of the surface impoundment must be with respect to permanent surveyed benchmarks. The plat must also contain a prominently displayed notice stating the owner or operator's obligation to restrict disturbance of the site as specified in MHW 264.117(c).
8. The notation on the deed must include notice that use of the land is restricted to activities as specified in MHW 264.117(c). The notation must address the requirements stated in MHW 264.119 regarding notification of the local land use authority.
9. The post-closure cost estimate must include provisions for administrative costs, inspection costs, and hourly labor costs.
10. The application lacks certificates of liability insurance for both sudden and non-sudden accidental occurrences.
11. The application must include certification as specified in MHW 270.11 signed by a responsible corporate officer.

Security, Contingency Plan and Personnel Training

1. The following changes of inspection schedules are necessary:
 - a. First aid equipment to be inspected weekly.
 - b. Emergency horns to be tested monthly.
 - c. Protective clothing needs to be inspected monthly.
 - d. The dike surrounding the impoundment should be inspected for deterioration after storms.
2. The application must include a statement that incompatible wastes and materials are not stored in the same surface impoundment.
3. The list of emergency equipment, communication and alarm systems, and decontamination equipment must include a brief outline of the capabilities of each piece of equipment.
4. A statement authorizing the designated emergency coordinators to commit the necessary resources to implement the contingency plan must be included.
5. The hazardous waste training program must document that the program is directed by a person trained in hazardous waste management.

Mr. Dick Karkkainen and
Mr. John G. Hill
November 14, 1985
Page -3-

The preceding changes should be made and submitted to this office no later than January 10, 1986.

In addition, the following schedule must be adhered to in complying with groundwater corrective action requirements as specified in MHWR Parts 264 and 270.

1. January 10, 1986 - Submit a report to this office that satisfies the following requirements:
 - a. Identifies the source of contamination.
 - b. Identifies the extent of contamination including location of the plume and contamination levels throughout the plume.
 - c. Characterizes the aquifer.
2. May 16, 1986 - Submit a draft Groundwater Corrective Action Plan to this office for approval.
3. June 16, 1986 - Submit the finalized Groundwater Corrective Action Plan and begin its implementation.

On November 20, 1985, the staff of the Bureau of Pollution Control will recommend to the Mississippi Commission on Natural Resources that the compliance dates mentioned in the preceding letter be incorporated into a Commission Order.

If you have any questions or comments regarding these matters, please contact us at 961-5171.

Sincerely,

Jack McMillan, Director
Division of Solid Waste Management

JEM:els



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

November 7, 1985

Mr. James H. Scarbrough, P.E.
Chief, Residuals Management Branch
Waste Management Division
U. S. EPA
345 Courtland Street, N.E.
Atlanta, GA 30365

RECEIVED

NOV 8 1985

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. Jack M. McMillan
Director, Division of Solid Hazardous
Waste Management
Mississippi Department of Natural Resources
P. O. Box 10385
Jackson, MS 39209

RE: Certification: EPA I.D. Number MSD0990714081;
Surface Impoundment for Storage of Rainwater
Prior to Discharge of Rainwater Through Activated
Carbon to the Mississippi River Under NPDES
Permit Number MS0027995

Gentlemen:

We certify that the referenced surface impoundment is in compliance with:

1. all applicable ground-water monitoring requirements.
2. the closure/post closure trust fund provisions of financial responsibility requirements.
3. requirements for submission of a Part B operating permit application.

Vertac has comprehensive general liability (CGL) insurance coverage, including umbrella coverage, totaling \$11,000,000. Each policy includes a so called "Pollution Exclusion" endorsement. We understand that such exclusions are uniformly included in CGL policies currently available to chemical manufacturers. It is not readily apparant to us that the pollution exclusion prevents certification of compliance with RCRA insurance requirements. We are advised by legal counsel that the majority of court cases involving the scope of such exclusions have found coverage for what might appear to be injuries and damages caused by "pollution" incidents.

Your letter of November 1, 1985 requests additional information. The additional information is provided:

1. The referenced surface impoundment or pond is located on attached sketches a(19)I, a(19)II, a(19)III and a(19)IV.

2. The referenced surface impoundment or pond is the unit of interest.

3. A closure plan for the referenced surface impoundment was submitted on June 18, 1985 as part of our RCRA Part B permit application.

4. a. The referenced surface impoundment or pond was denoted a RCRA surface impoundment by virtue of its general use as a secondary spill containment structure. Spills of the commercial pesticide dinitrobutylphenol could flow to the pond. During a typical day there were no spills; therefore, we have no information on the average rate of spills into the pond.

b. As of November 8, 1985 the surface impoundment will not receive hazardous waste.

c. There will be no hazardous waste placed in the unit between November 8, 1985 and December 31, 1985.

d. Any spills of the commercial pesticide are to be localized at the point of spill, placed or pumped into appropriate containers or containment vessels and disposed at an appropriately permitted hazardous waste facility.

5. The spills previously noted will be stored on-site for less than 90 days.

i. the type of storage will for now be drums or vessels

ii there is none presently in storage.

iii the rate of generation is unknown, but expected to be very small.

A. The waste will be shipped to off-site facilities, including:

1. Lamberton Chemical Resources in Oklahoma.

2. Gibraltar Chemical Resources in Texas.

3. Rollins in Louisiana.

or treated on-site in our above ground totally contained activated carbon treatment system.

B. If hazardous waste is placed in the surface impoundment a report will be submitted within 5 days to the EPA. The report will include:

1. date of spillage
2. amount of spillage
3. circumstances of the event.

Very truly yours,



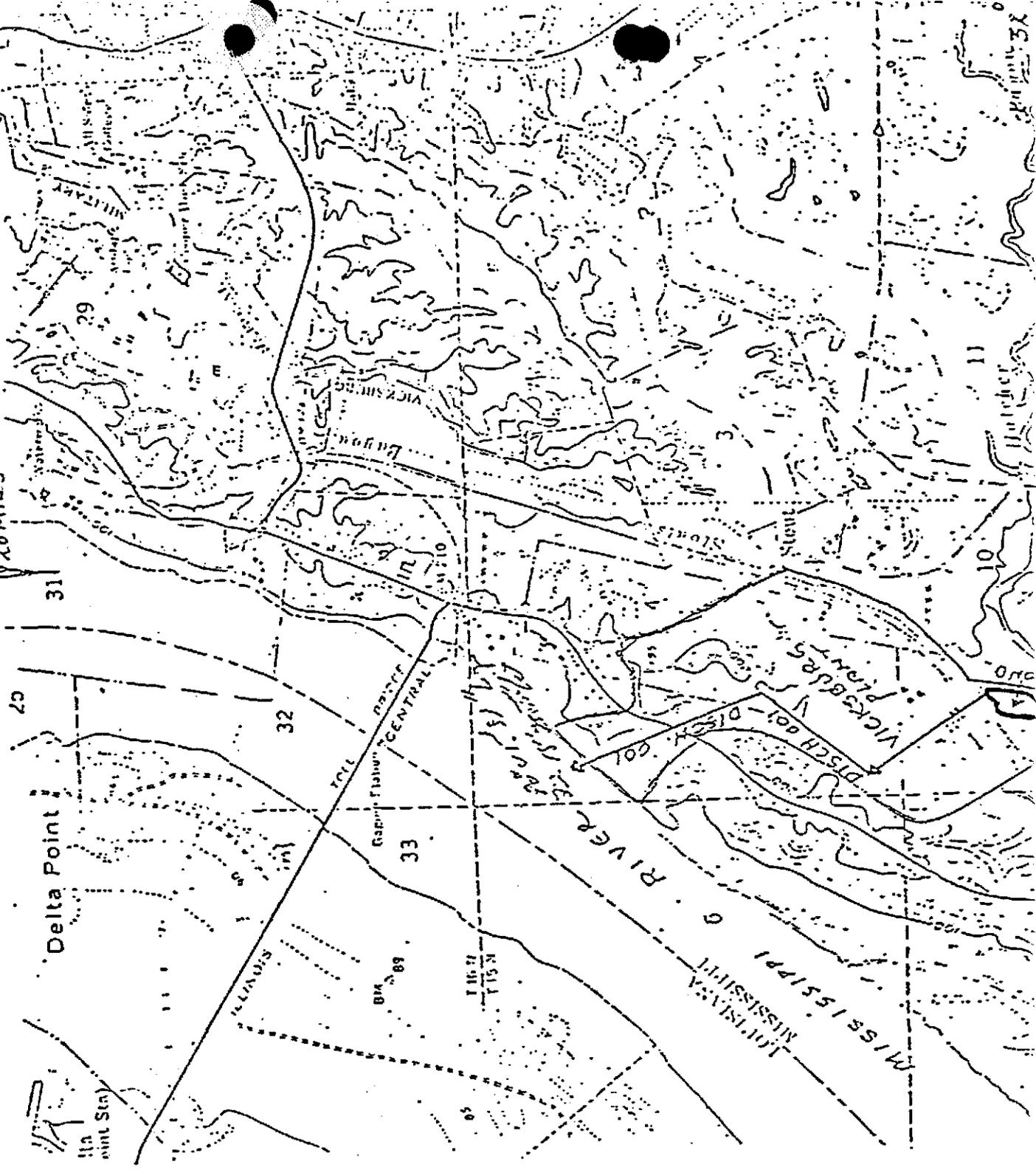
Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: F. L. Ahlers
C. P. Bomar
J. C. Bumpers
R. A. Guidi
J. G. Hill
A. T. Malone

UTM GRID AND 1962 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

6 1/2
116 HILLS
1° 06'
20 MILS



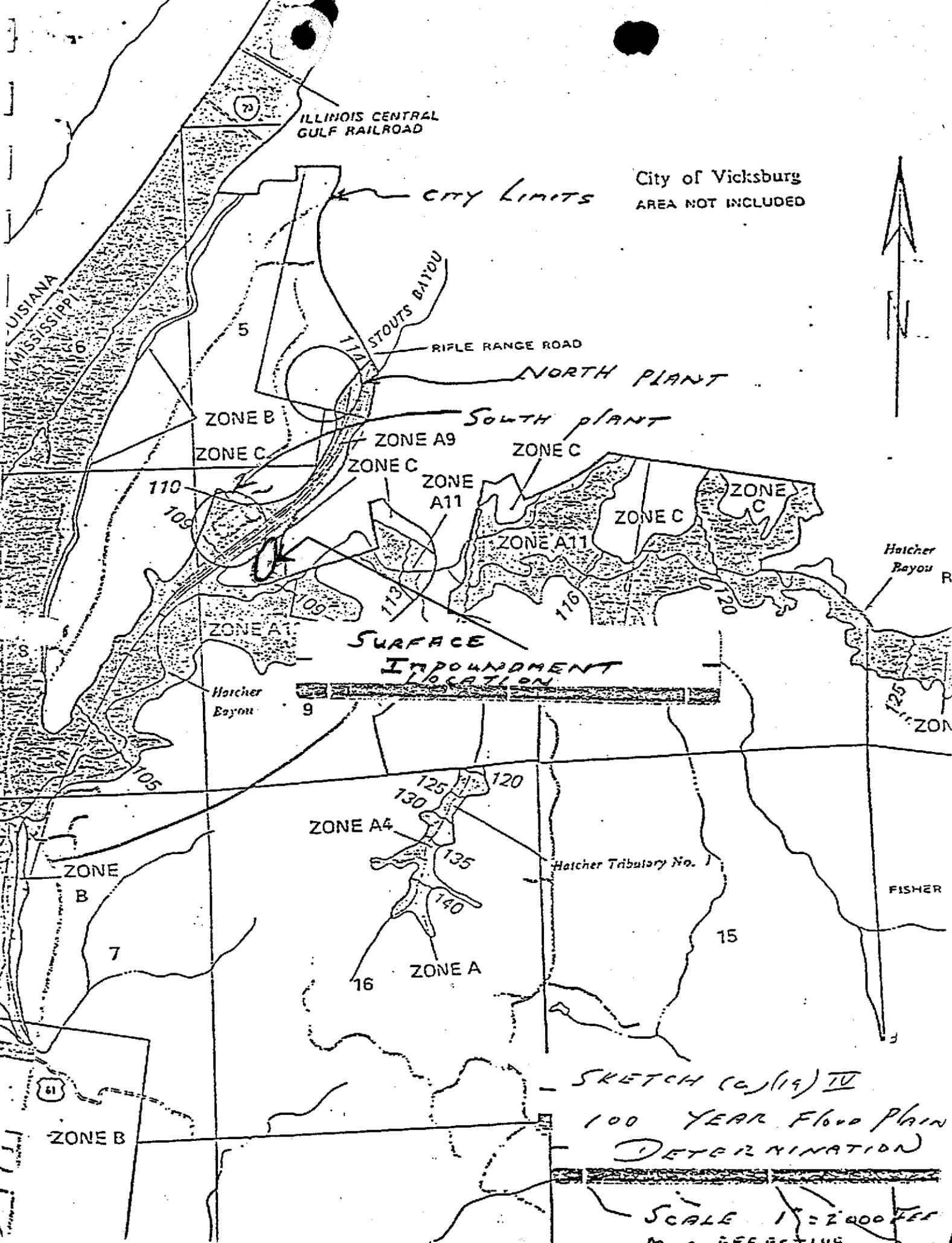
SKETCH
(a)(19) II
TOPOGRAPHIC
MAP

ILLINOIS CENTRAL
GULF RAILROAD

City of Vicksburg
AREA NOT INCLUDED

CITY LIMITS

LOUISIANA
MISSISSIPPI



NORTH PLANT

SOUTH PLANT

ZONE B

ZONE C

ZONE A9

ZONE C

ZONE A11

ZONE C

ZONE C

ZONE C

ZONE A1

SURFACE
IMPONDMENT
LOCATION

Hatcher
Bayou

Hatcher
Bayou R

125' ZON

ZONE A4

Hatcher Tributary No. 1

FISHER

ZONE B

B

15

7

16

ZONE A

SKETCH (G) (19) IV

100 YEAR FLOOD PLAIN
DETERMINATION

SCALE 1" = 2000 FEET
M.A. EFFECTIVE

61

ZONE B

FILE COPY

October 28, 1985

Mr. Dick Karkkainen
Vertac Chemical Corporation
Suite 2414
5100 Poplar Avenue
Memphis, Tennessee 38137

Dear Mr. Karkkainen:

Re: Financial Assurance Trust Fund

Enclosed is a copy of my letter to Mr. Allen T. Malone, in answer to his letter of September 30, 1985, referring to Vertac's proposed deposit of \$226,323 to their Financial Assurance Trust Fund. I am also including a copy of EPA Region IV Guidance on this subject. I hope this is of assistance.

If you have any questions or comments, please contact us at 601/961-5171.

Sincerely,

Jack B. McCord
Hazardous Waste Division

JBM:vgr
Enclosure

FILE COPY

October 21, 1985

Mr. Allen T. Malone
Apperson, Crump, Duzane, & Maxwell
26th Floor
100 North Main Building
Memphis, Tennessee 38103

Dear Mr. Malone:

Re: Vertac Chemical
Closure/Post-Closure Trust Fund

We have reviewed your letter of September 30, 1985, concerning the Vertac Chemical Company; RCRA closure/post-closure Trust Agreement. In order to be in compliance with MHW 265.145 (a)(3), it is necessary that the trust fund be fully funded upon closure of the facility. As stated in Vertac's RCRA Part B permit application section I-1, the closure date for their surface impoundment is prior to November, 1988. This is the date by which funding must be completed.

If the proposed deposit to the trust of \$226,323 is made by December 1, 1985, Vertac's funding will be considered to be presently in compliance. However, the anticipated closure date of November, 1988 will make three (3) annual payments of \$333,635 to the fund necessary for the trust to be fully funded at closure. This change of schedule might make it advantageous to explore alternative forms of funding.

I am enclosing a copy of EPA Region IV's Guidance on Financial Assurance Trust Funds to assist you with any questions you might have.

Please contact our office at 961-5171 if you have any further questions concerning these matters.

Sincerely,

Jack McCord
Hazardous Waste Section

JM:vgr
Enclosures



VERTAC CHEMICAL CORPORATION
24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

REPLY TO: P. O. BOX 3
VICKSBURG, MS 39180
(601) 636-1231

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

October 1, 1985

RECEIVED

OCT 2 - 1985

Mr. Thomas W. Devine
Director, Waste Management Division
United States Environmental Protection Agency
Region IV
345 Courtland Street
Atlanta, Georgia 30365

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Subject: Notice of Violation
EPA ID No. MSD 990 714 081

Dear Mr. Devine:

We have retained a consulting engineering firm to prepare the exposure information required in 40 CFR Part 270.10 (j)(1). They have already begun preparation of the report and we expect to have a completed Exposure Information Report ready for submission to the Agency by October 25, 1985.

If you have any questions, please contact John Hill at 601/636-1231.

Sincerely,

Fred Ahlers
Plant Manager

FA/ld

cc - ~~Mr.~~ Jack M. McMillan, MSDNR

LAW OFFICES
APPERSON, CRUMP, DUZANE & MAXWELL

26TH FLOOR

100 NORTH MAIN BUILDING
MEMPHIS, TENNESSEE 38103

901/525-1711

EAST OFFICE

SUITE 100
KIRBY CENTRE
1755 KIRBY PARKWAY
MEMPHIS, TENNESSEE 38119
901/756-6300

CHARLES W. METCALF, 1840-1924
WILLIAM P. METCALF, 1872-1940
JOHN W. APPERSON, 1896-1985

CHARLES METCALF CRUMP
JERRE G. DUZANE
JOHN B. MAXWELL, JR.
ALLEN T. MALONE
SAMUEL RUBENSTEIN
PHILIP G. KAMINSKY
ROBERT L. DINKELSPIEL
MICHAEL E. HEWGLEY
JAMES F. RUSSELL
JOHN L. RYDER
COLBY S. MORGAN, JR.
MICHAEL S. CHAMPLIN

GEORGE W. GRIDER
JOHN HART TODD
OF COUNSEL

September 30, 1985

RECEIVED

SEP 30 1985

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. Jack McMillan
Mississippi Department of
Natural Resources
P. O. Box 10385
Jackson, MS 39209

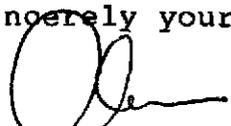
Re: Vertac Chemical Corporation
Vicksburg, Mississippi Plant
EPA ID No. MSD990714081

Dear Mr. McMillan:

Enclosed is a copy of my letter to the attorney for the First National Bank of Vicksburg, Trustee under Vertac Chemical Corporation's RCRA closure/post closure Trust Agreement, and a copy of the revised cost estimate which will be substituted for the original Exhibit A to the Trust Agreement.

Before making the payment indicated in the enclosure, Vertac would like assurance that the procedure indicated will constitute compliance with applicable financial assurance regulations under RCRA for purposes of the certification which Vertac must give in order to retain its interim permit status under RCRA. If you have any comment, I would appreciate hearing from you promptly.

Sincerely yours,


Allen T. Malone

ATM/bw

Enclosure

cc: Dick Karkkainen

DIVISION OF SOLID WASTE

REVIEWED BY ATM

DATE 10-11-85

COMMENTS Notified must be fully funded by 11-88

CHARLES W. METCALF 1840-1924
WILLIAM P. METCALF 1872-1940
JOHN W. APPERSON 1896-1965

CHARLES METCALF CRUMP
JERRE G. DUZANE
JOHN B. MAXWELL JR.
ALLEN T. MALONE
SAMUEL RUBENSTEIN
PHILIP G. KAMINSKY
ROBERT L. DINKELSPIEL
MICHAEL E. HEWGLEY
JAMES F. RUSSELL
JOHN L. RYDER
COLBY S. MORGAN JR.
MICHAEL S. CHAMFLIN

GEORGE W. GRIDER
JOHN HART TODD
OF COUNSEL

LAW OFFICES
APPERSON, CRUMP, DUZANE & MAXWELL

26TH FLOOR
100 NORTH MAIN BUILDING
MEMPHIS, TENNESSEE 38103
901/525-1711

EAST OFFICE
SUITE 100
KIRBY CENTRE
1755 KIRBY PARKWAY
MEMPHIS, TENNESSEE 38119
901/756-6300

September 30, 1985

Mr. Joe Schmitt
Vice President and Senior Trust Officer
First National Bank of Vicksburg
P. O. Box 39
Vicksburg, MS 39180-0039

Re: Vertac Chemical Corporation/First National Bank
Trust Agreement dated as of October 6, 1982

Dear Mr. Schmitt:

Enclosed is a second amended Exhibit A to the referenced Trust Agreement, increasing the closure and post closure costs associated with Vertac Chemical Corporation's Vicksburg plant from \$214,200 to \$1,251,200. RCRA regulations require such estimated costs to be funded in twenty (20) regular installments. At the current anniversary date, Vertac will need to make a "catch-up" installment in order to increase the trust fund to 1/5 of the current estimate (the amount that should be paid in after the 4th of 20 installments).

Based on the annual statement enclosed with your letter to Vertac of September 3, 1985 indicating a cash balance on hand in the trust fund of \$23,917.34, Vertac intends to deposit to the trust fund the sum of \$226,323. Thereafter, annual installments will total \$62,560.

By copy of this letter, we are notifying the Mississippi Department of Natural Resources of Vertac's intentions outlined above so that they will have an opportunity to comment before payment is made. The payment will be made by check to be forwarded from John Bumpers to you in the near future.

Sincerely yours,


Allen T. Malone

ATM/bw

Enclosure

cc: William G. Beanland
Jack McMillan
John C. Bumpers
Dick Karkkainen

CLOSURE COST ESTIMATE

Basis: Closure Schedule Contained in Section I-1

<u>ITEM</u>	<u>UNIT RATE</u>	<u>COST</u>
Labor	\$377/Hour	\$ 382,000
Equipment	\$237/Hour	240,000
Materials		
Stabilization	\$30/Ton	120,000
Clay Cap	\$8/Cu.Yd.	144,000
Topsoil	\$10/Cu.Yd.	78,000
Drainage	\$100/Lin.Ft.	18,000
Decontamination	\$200/Day	1,000
Vegetation	\$0.05/Sq.Ft.	9,000
Fencing	\$7.50/Lin.Ft.	<u>16,000</u>
	Total Closure Cost:	<u>\$1,008,000</u>

POST CLOSURE COST ESTIMATE

<u>ITEM</u>	<u>FREQUENCY</u>	<u>PERIODIC COST</u>	<u>30-YEAR COST</u>
Water Table Monitoring	1/Month	\$800	\$9,600
Background Sampling for Appendix VIII Constituents (8 Wells)	Once	\$1,000	\$1,000
Background Analysis for Appendix VIII Constituents (8 Wells)	Once	\$28,000	\$28,000
Detection Sampling for Appendix VIII Constituents (1 Well)	1/Year	\$100	\$3,000
Detection Analysis for Appendix VIII Constituents (1 Well)	1/Year	\$3,500	\$105,000
Site Maintenance	Weekly	\$50	\$69,600
Well Rework	1/5 Years	\$750	\$4,500
Elevation Survey	1/Year	\$750	<u>\$ 22,500</u>

TOTAL POST CLOSURE COST:

\$243,200

EXHIBIT A

Facilities and Cost Estimates

(Revised as of October 6, 1985)

Vertac Chemical Corporation
Vicksburg Plant
P. O. Box 3
Vicksburg, Mississippi 39180

EPA ID# MSD 990714081

Closure
Post-Closure

\$1,008,000
\$ 243,200

FILE COPY

September 24, 1985

Mr. John Hill
Vertac Chemical Corporation
P. O. Box 3
Vicksburg, Mississippi 39180

Dear Mr. Hill:

Re: Corrective Action Plan
MSD990714081

We have reviewed your letter of September 16, 1985. The proposed actions appear appropriate to develop the field data for a corrective action program. It would appear that an additional well between MW-1 and the surface impoundment could provide valuable data and help better define any groundwater contamination around MW-1. We believe this should be considered.

We are planning to place Vertac under a compliance schedule to carry-out the corrective action plan. The proposed corrective action schedule in Section E-3 of the latest Part B submittal calls for the design and implementation to be completed by June 15, 1986. This date appears to be too long. We would like to meet with you and your consultants at your convenience to discuss the proposed schedule.

Please contact our office should you have any questions concerning these matters.

Sincerely,

Charles Estes, P. E.
Hazardous Waste Section

CE:els



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

RECEIVED

SEP 19 1985

REPLY TO: P. O. BOX 3
VICKSBURG, MS 39180
(601) 636-1231

Mr. Charles Estes, P.E.
Hazardous Waste Section
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

CERTIFIED MAIL
DEPT. OF NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL
RETURN RECEIPT REQUESTED

September 16, 1985

Dear Mr. Estes:

According to the corrective action plan outlined in Section E-3 of our RCRA Part B Application, the first three action items to be implemented upon the completion of the Appendix VIII analysis of the groundwater well samples are:

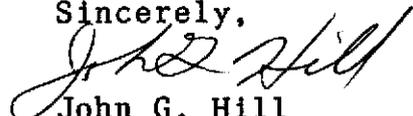
- 1) Identify the source of contamination
- 2) Identify the extent of contamination.
- 3) Characterize the aquifer.

In order to implement this action plan, we propose the following:

- 1) Continue collecting and compiling data on groundwater levels from all existing (and proposed) monitoring wells and piezometers.
- 2) Install and develop four additional groundwater monitoring wells, located as shown on the attached Figure 1. Undisturbed soil samples will be collected from each well for determination of Atterberg Limits, falling head permeability, void ratio and porosity values.
- 3) Water level recovery tests will be run on Well Nos. 1, 6, 11, and 12.
- 4) Well Nos. 9, 10, 11, and 12 (the new wells) will be analyzed for DNBPs.

These proposed measures will simultaneously implement the action items as specified in the Corrective Action Plan. The Bureau's prompt review and comment will be appreciated. If you have any questions, please feel free to give me a call.

Sincerely,

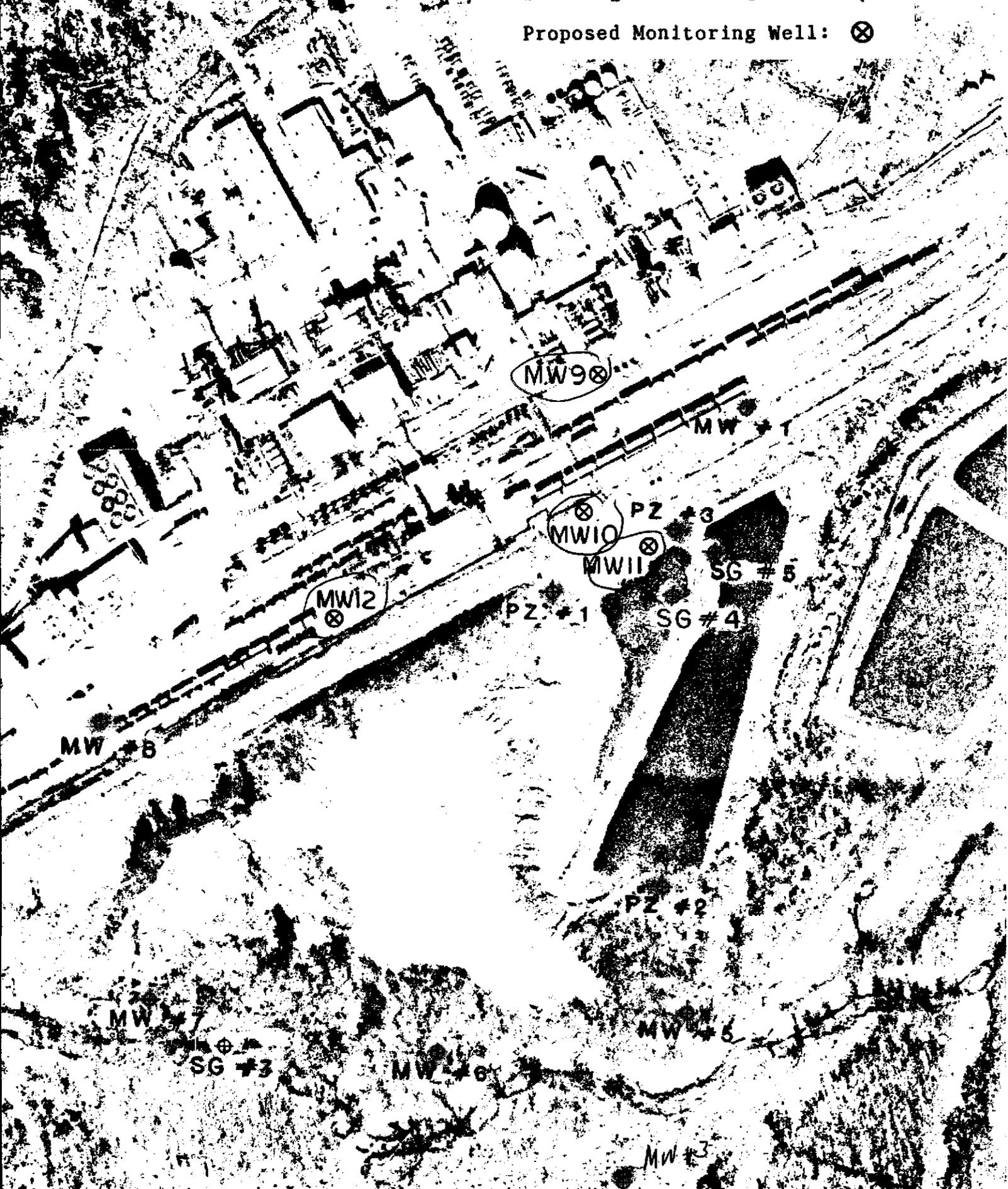

John G. Hill
Environmental Engineer

JGH/lld
Enc.
cc - F. Ahlers, D. Karkkainen

LEGEND

Existing Monitoring Well: ⊕

Proposed Monitoring Well: ⊗





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

SEP 12 1985

4WD-WC

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Fred Ahlers
Plant Manager
Vertac Chemical Corporation
Post Office Box 3
Vicksburg, Mississippi 39180

Re: Notice of Violation
Vertac Chemical Corporation - Vicksburg, MS
EPA ID No.: MSD 990 714 081

Dear Mr. Ahlers:

We are in receipt of your Part B Application for the Hazardous Waste Facility Permit. This represents your application for a final determination regarding a permit under Section 3005(c) of the Resource Conservation and Recovery Act (RCRA).

40 CFR Part 270.10(j)(2) requires that by August 8, 1985, owners and operators of a landfill or a surface impoundment who have already submitted a Part B application must submit the exposure information required in 40 CFR Part 270.10(j)(1) which states:

"After August 8, 1985, any Part B permit application submitted by an owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or a landfill must be accompanied by information, reasonably ascertainable by the owner or operator, on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information must address:

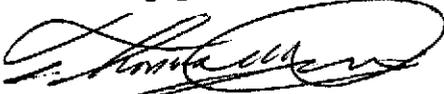
- "(1) reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;
- "(2) the potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under paragraph (1); and
- "(3) the potential magnitude and nature of the human exposure resulting from such releases."

On August 8, 1985, your Exposure Information and Health Assessment was due to be received by this office to satisfy the requirements of 40 CFR 270.10. This office has not received the required documents. Therefore, as of August 8, 1985, your facility is in violation of 40 CFR 270.10(j)(2).

Please submit the required Exposure Assessment within fifteen (15) days of receipt by certified mail of this notice. Failure to submit the above information within the specified time frame may result in the issuance of an Administrative Order pursuant to §3008(a) of RCRA and the assessment of a civil penalty.

If you have any questions, please contact Allan Antley at 404/881-4552.

Sincerely yours,



Thomas W. Devine
Director
Waste Management Division

cc: Mr. Jack M. McMillan, MSDNR

Joan K. Leavitt, M.D.
Commissioner

**OKLAHOMA STATE
DEPARTMENT OF HEALTH**



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**R.O. BOX 53551
1000 N.E. TENTH
OKLAHOMA CITY, OK 73152**

AN EQUAL OPPORTUNITY EMPLOYER

September 6, 1985

Charles Estes, P.E.
Division of Solid Waste Management
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS. 39209

Dear Mr. Estes:

John Hill of Vertac Chemical, Vicksburg, Mississippi, contacted this office in response to your communication of August 28. The manifesting errors as described in our letters of June 6, July 1, and August 8, 1985 were discussed and hopefully resolved.

Thank you for assisting our efforts to maintain a waste tracking system.

If you have any questions, feel free to call Lee Bosch at the Oklahoma State Health Department, Industrial Waste Division at (405) 271-5338.

Very truly yours,

Donald A. Hensch, P.E., Director
Industrial Waste Division

DAH/LJB/bls

FILE COPY

August 28, 1985

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor, 5100 Poplar
Memphis, Tennessee 38111

Dear Mr. Karkkainen:

Re: Hazardous Waste Manifests

On August 8, 1985 and July 8, 1985, we received a letter from the Oklahoma State Health Department which indicated that Vertac Chemical had improperly completed manifests. Enclosed are copies of the manifests with the discrepancies circled.

Please make facility personnel aware of the discrepancies and correct them immediately to avoid potential enforcement actions.

Should you have any questions concerning this matter, please contact our office.

Sincerely,



Charles Estes, P. E.
Division of Solid Waste Management

CE:els
Enclosures
cc: Mr. John Hill, Vertac, Vicksburg, MS

Chuck

Aug 9

Dr Ed Jackson, MSCL called me
re: ammoniated Dinoselb spent acid
solution, a by-product of
Dinoselb (DNBP).

Vertac wants to sell or give
this material to farmers.

A sample was sent to MSCL
from Dept. of Agriculture? or
Vertac? for priority pollutant
analysis.

~~Do you know anything about this?~~

Gene Bellett? consultant
Stanley Bernard ← Vertac

9.2 pH

David

300 mg/l of
a dinitro compound
(a pesticide) in a
waste water stream.

Company wants to give
it to farmers.

Dinoseb

Joan K. Leavitt, M.D.
Commissioner

**OKLAHOMA STATE
DEPARTMENT OF HEALTH**



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**P.O. BOX 53551
1000 N.E. TENTH
OKLAHOMA CITY, OK 73152**

AN EQUAL OPPORTUNITY EMPLOYER

August 8, 1985

Jack McMillan
Division of Solid/Hazardous
Waste Management
Mississippi Dept. of Natural Resources
P.O. Box 10385
Jackson, MS 39209

Dear Mr. McMillan:

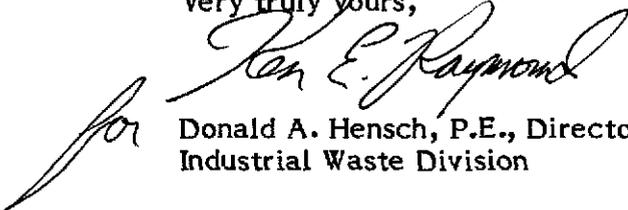
Enclosed are copies of Oklahoma Uniform Hazardous Waste Manifest Numbers: 19857, 19859, 19860, 19861, 19862, 19863, 19865, 19866 and 19867 dated June 1985. These covered shipments from Vertac Chemical Corporation to W.J. Lambertson Injection Well.

This generator is out of compliance with the Oklahoma Rules and Regulations for Industrial Waste Management, and Federal Rules. 40 CFR 262.21 requires a properly completed manifest be offered prior to transport. Each manifest fails to use the appropriate volume abbreviation from Table II of the 40 CFR 262 appendix concerning the manifest and instructions.

Our Division believes you should be aware of this matter and feels the appropriate enforcement action regarding this generator should be left to your discretion.

If you have any questions concerning this matter, feel free to call Lee Bosch of the Oklahoma State Health Department, Industrial Waste Division at (405) 271-5338.

Very truly yours,


Donald A. Hensch, P.E., Director
Industrial Waste Division

DAH/LJB/lp



Industrial Waste Division
 Oklahoma State Department of Health
 P.O. Box 53551
 Oklahoma City, Oklahoma 73152
 (405) 271-5338

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 Waste Management Service

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Form Approved OMB No. 2000-0404 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. MSD990174081		Manifest Document No. 67		2. Page 1 of		Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address VERTAC CHEMICAL CORP P.O. BOX 3, VICKSBURG, MS 39180						A. State Manifest Document Number (Okla.) 19858							
4. Generator's Phone (601) 636-1231						B. State Generator's ID (Okla.) 86001							
5. Transporter 1 Company Name ILLINOIS CENTRAL GULF RAILROAD				6. US EPA ID Number I.L.D.0.0.0.8.0.4.4.4.3		C. State Transporter's ID (Okla.) N/A							
7. Transporter 2 Company Name BURLINGTON NORTHERN RAILROAD						D. Transporter's Phone 312-565-1600							
8. US EPA ID Number M.N.D.0.4.8.3.4.1.7.8.8				9. Designated Facility Name and Site Address W.J. LAMBERTON INJECTION WELL 2700 S. 25th W. AVE TULSA OK 74109		E. State Transporter's ID (Okla.) 4002							
10. US EPA ID Number O.K.D.0.0.0.4.0.2.3.9.6						F. Transporter's Phone 918-496-0030							
						G. State Facility's ID (Okla.) TW 73005							
						H. Facility's Phone 918-582-9595							
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol		1. Waste No.	
a. HM WASTE, CORROSIVE LIQUID, POISON N.O.S. UN 2922 RQ PLACARDED CORROSIVE						0 0 1 T/C		20,065 Gall				Okla. 06440/ EPA D000402396	
b. UNIT WT/VOL												Okla. D002 EPA	
c. GROSS: 263,000 TARE: 78,600 NET: 184,400												Okla. EPA	
d. 9.19#/GAL												Okla. EPA	
J. Additional Descriptions for Materials Listed Above CAR NUMBER RIMX 12423 SEAL: 98971						K. Handling Codes for Wastes Listed Above							
15. Special Handling Instructions and Additional Information													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.													
Printed/Typed Name BARBARA LANGLEY						Signature <i>Barbara Langley</i>			Date Month Day Year 06/04/85				
17. Transporter 1 Acknowledgement of Receipt of Materials						Signature <i>R.C. Smith</i>			Date Month Day Year 06/04/85				
Printed/Typed Name R.C. SMITH						Signature <i>R.C. Smith</i>			Date Month Day Year 06/04/85				
18. Transporter 2 Acknowledgement or Receipt of Materials						Signature <i>C.L. Mallowee</i>			Date Month Day Year 06/01/85				
Printed/Typed Name C.L. Mallowee						Signature <i>C.L. Mallowee</i>			Date Month Day Year 06/01/85				
19. Discrepancy Indication Space						JUN 4 1985							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						SHIPPERS LOAD AND COUNT M. C. PICKETT, AGENT VICKSBURG, MISS. Date Month Day Year 06/1985							
Printed/Typed Name Richard Herndon						Signature <i>Richard Herndon</i>			Date Month Day Year 06/1985				



Industrial Waste Division
 Oklahoma State Department of Health
 P.O. Box 53551
 Oklahoma City, Oklahoma 73152
 (405) 271-5338

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. Management & Manifest Document No. MSD 9 9 0 1 7 4 0 8 1		2. Page 1 of 6		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address VERTAC CHEMICAL CORP P.O. BOX 3, VICKSBURG, MS 39180				A. State Manifest Document Number (Okla.) 19857			
4. Generator's Phone (601) 636-1231				B. State Generator's ID (Okla.) 86001			
5. Transporter 1 Company Name ILLINOIS CENTRAL GULF RAILROAD		6. US EPA ID Number I L D 0 0 0 8 0 4 4 4		C. State Transporter's ID (Okla.) N/A		D. Transporter's Phone 312-565-1600	
7. Transporter 2 Company Name BURLINGTON NORTHERN RAILROAD		8. US EPA ID Number L M N D 0 4 8 3 4 1 7 8 8		E. State Transporter's ID (Okla.) 4002		F. Transporter's Phone 918-496-0030	
9. Designated Facility Name and Site Address W.J. LAMBERTON INJECTION WELL 2700 S. 25th W. AVE TULSA, OK 74109				10. US EPA ID Number L O K D 0 0 0 4 0 2 3 9 6		G. State Facility's ID (Okla.) IW 73005	
				H. Facility's Phone 918-582-9595			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers		13. Total Quantity	14. Unit
a. HM WASTE, CORROSIVE LIQUID POISON N.O.S. UN 2922 RQ PLACARDED CORROSIVE				No. Type 0 0 1 T/C		19,543 Gal	I. Waste No. Okla. 06440/ EPA D000402396
b. UNIF WT/VOL GROSS: 262,000							Okla. D002 EPA
c. TARE: 82,400 NET: 179,600							Okla. EPA
d. 9.19#/Gal							Okla. EPA
J. Additional Descriptions for Materials Listed Above CAR NUMBER: RIMX 12796 SEAL: 98970				K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.							
Printed/Typed Name Barbara Langley				Signature <i>Barbara Langley</i>		Date 0 6 0 3 8 5	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature RECEIVED		Date 0 6 0 3 8 5	
Printed/Typed Name R.C. Smith				Signature Illinois Central Gulf R. R. Co.		Date 0 6 0 3 8 5	
18. Transporter 2 Acknowledgement or Receipt of Materials				Signature FREIGHT OFFICE		Date 0 6 1 0 8 5	
Printed/Typed Name C L MALLONEE				Signature <i>C L Mallonee</i>		Date 0 6 1 0 8 5	
19. Discrepancy Indication Space JUN 3 1985							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.							
Printed/Typed Name Richard Herndon				Signature M. C. PICKETT, AGENT VICKSBURG, MISS.		Date 6/1/85	



Industrial Waste Division
 Oklahoma State Department of Health
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 Oklahoma City, Oklahoma 73152
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Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. MSD990174081		2. Page 1 of 62		3. Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address VERTAC CHEMICAL CORP P.O. BOX 3, VICKSBURG, MS				A. State Manifest Document Number (Okla.) 19859							
4. Generator's Phone (601) 636-1231				B. State Generator's ID (Okla.) 86001							
5. Transporter 1 Company Name ILLINOIS CENTRAL GULF RAILROAD				6. US EPA ID Number IL1100080444							
7. Transporter 2 Company Name BURLINGTON NORTHERN RAILROAD				8. US EPA ID Number MN0048341788							
9. Designated Facility Name and Site Address W.J. LAMBERTON INJECTION WELL 2700 S. 25th W. AVE TULSA, OK 74109				10. US EPA ID Number I0KD000402396							
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers		13. Total Quantity		14. Unit		15. Waste No.	
a. WASTE, CORROSIVE LIQUID, POISON N.O.S. UN 2922 RC				0 0 1 T/C		20,218 GAL				Okla. 064401 EPA D000402396	
b. PLACARDED CORROSIVE UNIT WT/VOL										Okla. FED D002 EPA	
c. GROSS: 263,600 TARE: 77,800 NET 185,800										Okla. EPA	
d. 9.19#/GAL										Okla. EPA	
J. Additional Descriptions for Materials Listed Above CAR NUMBER: RIMX 12101 SEAL: 98972						K. Handling Codes for Wastes Listed Above					
15. Special Handling Instructions and Additional Information											
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.											
Printed/Typed Name BARBARA LANCELY				Signature <i>Barbara Lancelly</i>				Date Month Day Year 06/04/85			
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name R.C. SMITH				Signature <i>RC Smith</i>				Date Month Day Year 06/04/85			
18. Transporter 2 Acknowledgement or Receipt of Materials											
Printed/Typed Name C. C. MALLONEE				Signature <i>C. C. Mallonee</i>				Date Month Day Year 06/10/85			
19. Discrepancy Indication Space											
SHIPPERS LOAD AND COUNT M. C. PICKETT, AGENT VICKSBURG, MISS.											
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.											
Printed/Typed Name <i>Richard Herndon</i>				Signature <i>Richard Herndon</i>				Date Month Day Year 6/1/85			



Industrial Waste Division
 Oklahoma State Department of Health
 P.O. Box 53551
 Oklahoma City, Oklahoma 73152
 (405) 271-5338

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID Number M S D 9 9 0 1 7 4 0 8 1		Manifest Service No. 63		2. Page 1 of		Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address VERTAC CHEMICAL CORP P.O. BOX 3, VICKSBURG, MS 39180						A. State Manifest Document Number (Okla.) 19860							
4. Generator's Phone (601) 636-1231						B. State Generator's ID (Okla.) 86001							
5. Transporter 1 Company Name ILLINOIS CENTRAL GULF RAILROAD			6. US EPA ID Number I L D 0 0 0 8 0 4 4 4 3			C. State Transporter's ID (Okla.) N/A							
7. Transporter 2 Company Name BURLINGTON NORTHERN RAILROAD			8. US EPA ID Number M N D 0 0 0 0 0 0 0 0 0 0			D. Transporter's Phone 312-565-1600							
9. Designated Facility Name and Site Address W.J. LAMBERTON INJECTION WELL 2700 S. 25th W. AVE TULSA OK 74109						10. US EPA ID Number O K D 0 0 0 4 0 2 3 9 6		E. State Transporter's ID (Okla.) 4002					
								F. Transporter's Phone 918-496-0030					
								G. State Facility's ID (Okla.) IW 73005					
								H. Facility's Phone 918-582-9595					
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit		1. Waste No.	
a. HM WASTE, CORROSIVE LIQUID, POISON N.O.S. UN 2922 RQ PLACARDED CORROSIVE						No. Type 0 0 1 T/C		20,065 GAL		Okla. Waste No. 06440/		EPA D000402396	
b. UNIT WT/VOL GROSS: 263,600 TARE: 79,200										Okla. Fed D-002 EPA			
c. NET: 184,400										Okla. EPA			
d.										Okla. EPA			
J. Additional Descriptions for Materials Listed Above CAR NUMBER: RIMX 12646 SEAL: 98973						K. Handling Codes for Wastes Listed Above							
15. Special Handling Instructions and Additional Information													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.													
Printed/Typed Name BARBARA TANGLEY						Signature <i>Barbara Tangley</i>		Date Month Day Year 0 6 0 6 8 5					
17. Transporter 1 Acknowledgement of Receipt of Materials						Printed/Typed Name R.C. SMITH		Signature <i>R.C. Smith</i>		Date Month Day Year 0 6 0 6 8 5			
18. Transporter 2 Acknowledgement or Receipt of Materials						Printed/Typed Name C L MALLONEE		Signature <i>C L Mallonee</i>		Date Month Day Year 0 6 0 9 8 5			
19. Discrepancy Indication Space						JUN 6 1985							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						SHIPPERS LOAD AND COUNT M. S. PICKETT, AGENT VICKSBURG, MISS.							
Printed/Typed Name Richard Hendon						Signature <i>Richard Hendon</i>		Date Month Day Year 6 1 8 5					



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 Oklahoma State Department of Health
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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. MSD990174081		Manifest Document No. 64		2. Page 1 of		Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address VERTAC CHEMICAL CORP P.O. BOX 3, VICKSBURG, MS 39180						A.State Manifest Document Number (Okla.) 19861							
4. Generator's Phone (601) 636-1231						B.State Generator's ID (Okla.) 86001							
5. Transporter 1 Company Name ILLINOIS CENTRAL GULF RAILROAD			6. US EPA ID Number I.L.D.0.0.0.8.0.4.4.3			C.State Transporter's ID (Okla.) N/A							
7. Transporter 2 Company Name BURLINGTON NORTHERN RAILROAD			8. US EPA ID Number M.N.D.0.4.8.3.4.1.7.8.8			D.Transporter's Phone 312-565-1600							
9. Designated Facility Name and Site Address W.J. LAMBERTON INJECTION WELL 2700 S.25th W. AVE TULSA, OK 74109						E.State Transporter's ID (Okla.) 4002							
10. US EPA ID Number I.O.K.D.0.0.0.4.0.2.3.9.6						F.Transporter's Phone 918-496-0030							
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit		1. Waste No.	
a. <input checked="" type="checkbox"/> HM WASTE, CORROSIVE LIQUID POISON N,OS. UN 2922 RQ PLACARDED CORROSIVE						No. Type 0 0 1E/C		20,109 GAL				Okla. 064401 EPA D000402396	
b. PLACARDED CORROSIVE UNIT WT/VOL GROSS: 260,400												Okla. EPA FED D-002	
c. TARE: 75,600 NET: 184,800												Okla. EPA	
d. 9.1% #/GAL												Okla. EPA	
J. Additional Descriptions for Materials Listed Above CAR NUMBER: RIMX 12444 SEAL: 98974						K.Handling Codes for Wastes Listed Above							
15. Special Handling Instructions and Additional Information													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.													
Printed/Typed Name BARBARA LANGLEY				Signature <i>Barbara Langley</i>				Date Month Day Year 06 13 85					
17. Transporter 1 Acknowledgement of Receipt of Materials						RECEIVED							
Printed/Typed Name R.C. SMITH				Signature <i>R.C. Smith</i>				Date Month Day Year 06 13 85					
18. Transporter 2 Acknowledgement or Receipt of Materials													
Printed/Typed Name C. L. MAZZONEE				Signature <i>C.L. Mazzonee</i>				Date Month Day Year 06 10 85					
19. Discrepancy Indication Space													
SHIPPERS LOAD AND COUNT M. C. PICKETT, AGENT VICKSBURG, MISS.													
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.													
Printed/Typed Name <i>Tom R. Edwards</i>				Signature <i>Tom R. Edwards</i>				Date Month Day Year 6 21 85					



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 Oklahoma State Department of Health
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Waste Management Service

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. M S D 9 9 0 1 7 4 0 8 1		Manifest Document No. 6 5		2. Page 1 of		Information in the shaded areas is not required by Federal law.						
3. Generator's Name and Mailing Address VERTAC CHEMICAL CORP P.O. BOX 3, VICKSBURG, MS 39180						A. State Manifest Document Number (Okla.) 19862								
4. Generator's Phone (601) 636-1231						B. State Generator's ID (Okla.) 86001								
5. Transporter 1 Company Name ILLINOIS CENTRAL GULF RAILROAD			6. US EPA ID Number I I D 0 0 0 8 0 4 4 4 3			C. State Transporter's ID (Okla.) N/A								
7. Transporter 2 Company Name BURLINGTON NORTHERN RAILROAD			8. US EPA ID Number M N D 0 4 8 3 4 1 7 8 8			D. Transporter's Phone 312-565-1600								
9. Designated Facility Name and Site Address W.J. LAMBERTON INJECTION WELL 2700 S. 25th W.AVE TULSA OK 74109						10. US EPA ID Number O K D 0 0 0 4 0 2 3 9 6			E. State Transporter's ID (Okla.) 4002					
						F. Transporter's Phone 918-496-0030								
						G. State Facility's ID (Okla.) IW 73005								
						H. Facility's Phone 918-582-9595								
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit		1. Waste No.		
a. HM WASTE, EXTREMELY CORROSIVE LIQUID, POISON N.O.S. UN 2922 RC						0 0 1 T/C		20,218/gal				Okla. 064401 EPA 0000402396		
b. PLACARDED CORROSIVE UNIT WT/VOL: GROSS: 261,400												Okla. FED:D-002 EPA		
c. TARE: 75,600 NET: 185,800												Okla. EPA		
d.												Okla. EPA		
J. Additional Descriptions for Materials Listed Above CAR NUMBER: RIMX 12610 SEAL: 98975						K. Handling Codes for Wastes Listed Above								
15. Special Handling Instructions and Additional Information														
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.														
Printed/Typed Name BARBARA LANGLEY						Signature <i>Barbara Langley</i>			Date Month Day Year 0 6 1 8 8 5					
17. Transporter 1 Acknowledgement of Receipt of Materials						Printed/Typed Name			Signature <i>M. A. Canzino</i>			Date Month Day Year 0 6 1 8 8 5		
18. Transporter 2 Acknowledgement or Receipt of Materials						Printed/Typed Name CL MALLOWEE			Signature <i>CL Mallowee</i>			Date Month Day Year 0 6 2 3 8 5		
19. Discrepancy Indication Space														
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.														
Printed/Typed Name VIRGEL A. PRUETT						Signature <i>Virgel A. Pruett</i>			Date Month Day Year 6 2 9 8 5					



JUL 12 1985

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Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. MSD990174081		2. Page 1 of 6 Manifest Document No. 66		Information in the shaded areas is not required by Federal law.								
3. Generator's Name and Mailing Address VERTAC CHEMICAL CORP P.O. BOX 3, VICKSBURG, MS 39180				A. State Manifest Document Number (Okla.) 19863										
4. Generator's Phone (601-) 636-1231				B. State Generator's ID (Okla.) 86001										
5. Transporter 1 Company Name ILLINOIS CENTRAL GULF RAILROAD		6. US EPA ID Number ILD000804443		C. State Transporter's ID (Okla.) N/A										
7. Transporter 2 Company Name BURLINGTON NORTHERN RAILROAD		8. US EPA ID Number MND048341788		D. Transporter's Phone 1-312-565-1600										
9. Designated Facility Name and Site Address W.J. LAMBERTON INJECTION WELL 2700 S. 25th W. AVE TULSA, OK 74109		10. US EPA ID Number DKD000402396		E. State Transporter's ID (Okla.) 4002										
				F. Transporter's Phone 918-496-0030										
				G. State Facility's ID (Okla.) IW 73005										
				H. Facility's Phone 918-582-9595										
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol		1. Waste No.		
a. HM WASTE, CORROSIVE LIQUID, POISON N.O.S. UN 2922 RQ PLACARDED CORROSIVE						No. 001		Type T/C		20109/gal		Okla. 064401 EPA D000402396		
b. UNIT WT/VOL: GROSS: 264,400 TARE: 79,600 NET: 184,800												Okla. FED:D-002 EPA		
c.												Okla. EPA		
d.												Okla. EPA		
J. Additional Descriptions for Materials Listed Above CAR NUMBER: RIMX 2117 SEALS: 98976						K. Handling Codes for Wastes Listed Above								
15. Special Handling Instructions and Additional Information														
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.														
Printed/Typed Name BARBARA LANGLEY						Signature <i>Barbara Langley</i>			Date 06/18/85					
17. Transporter 1 Acknowledgement of Receipt of Materials						Printed/Typed Name			Signature <i>M.A. Conyers</i>			Date 06/18/85		
18. Transporter 2 Acknowledgement or Receipt of Materials						Printed/Typed Name CL MALLONEE			Signature <i>CL Mallonee</i>			Date 06/24/85		
19. Discrepancy Indication Space														
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.														
Printed/Typed Name VIRGEL A. PRUETT						Signature <i>Virgel A. Pruett</i>			Date 06/30/85					



Industrial Waste Div.
Oklahoma State Dep. of Health
P.O. Box 53551
Oklahoma City, Oklahoma 73152
(405) 271-5338

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NATIONAL EMERGENCY RESPONSE CENTER:
(800) 424-8802

JUL 13 1985

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Form Approved. OMB No. 2000-0404 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. MSD99017408		Manifest Document No. 1868		2. Page 1 of		Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address VERTAC CHEMICAL CORP P.O. BOX 3, VICKSBURG, MS 39180						A. State Manifest Document Number (Okla.) 19865							
4. Generator's Phone (601) 636-1231						B. State Generator's ID (Okla.) 86001							
5. Transporter 1 Company Name ILLINOIS CENTRAL GULF RAILROAD				6. US EPA ID Number I.L.D.0.0.0.8.0.4.4.4.3		C. State Transporter's ID (Okla.) N/A							
7. Transporter 2 Company Name BURLINGTON NORTHERN RAILROAD						8. US EPA ID Number M.N.D.0.4.8.3.4.1.7.8.8		D. Transporter's Phone 312-565-1600					
9. Designated Facility Name and Site Address W.J. LAMBERTON INJECTION WELL 2700 S. 25th W. AVE TULSA OK 74109						10. US EPA ID Number OKD000040239		E. State Transporter's ID (Okla.) 4002					
								F. Transporter's Phone 918-496-0030					
								G. State Facility's ID (Okla.) IW 73005					
								H. Facility's Phone 918-582-9595					
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)										12. Containers	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
HM	a. WASTE, CORROSIVE LIQUID, POISON N.O.S. UN 2922 RQ PLACARDED CORROSIVE									No.	Type	20413/brl	Okla. 064401 EPA 0000402396
	b. WT/VOL: GROSS: 266,800												Okla. D-002 EPA
	c. TARE: 79,200												Okla. EPA
	d. NET: 187,600												Okla. EPA
J. Additional Descriptions for Materials Listed Above CAR NUMBER: RIMX 2372 SEAL: 98978						K. Handling Codes for Wastes Listed Above							
15. Special Handling Instructions and Additional Information													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.													
Printed/Typed Name BARBARA LANGLEY						Signature <i>Barbara Langley</i>			Date Month Day Year 06 19 85				
17. Transporter 1 Acknowledgement of Receipt of Materials						Printed/Typed Name M/ CANIZANO			Signature <i>M. Canizano</i>		Date Month Day Year 06 19 85		
18. Transporter 2 Acknowledgement or Receipt of Materials						Printed/Typed Name C.L. MALLONEE			Signature <i>C. L. Mallonee</i>		Date Month Day Year		
19. Discrepancy Indication Space													
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.													
Printed/Typed Name VIRGEL A. PRUETT						Signature <i>Virgel A. Pruett</i>			Date Month Day Year 16 28 85				



Industrial Waste Division
 Oklahoma State Department of Health
 P.O. Box 53551
 Oklahoma City, Oklahoma 73152
 (405) 271-5338

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Press hard you are making six (6) copies. (Form designed for use on electronic manifest system.)

Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. MSD 990174081		Manifest Document No. 69		2. Page 1 of		Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address VERTAC CHEMICAL CORP P.O. BOX 3, VICKSBURG, MS 39180						A. State Manifest Document Number (Okla.) 19866							
4. Generator's Phone (601) 636-1231						B. State Generator's ID (Okla.) 86001							
5. Transporter 1 Company Name ILLINOIS CENTRAL GULF RAILROAD			6. US EPA ID Number ILLD000804443			C. State Transporter's ID (Okla.) N/A							
7. Transporter 2 Company Name BURLINGTON NORTHERN RAILROAD			8. US EPA ID Number MND048341788			D. Transporter's Phone 312-565-1600							
9. Designated Facility Name and Site Address W.J. LAMBERTON INJECTION WELL 2700 S. 25th W. AVE TULSA, OK 74109						10. US EPA ID Number LOKD000402396		E. State Transporter's ID (Okla.) 4002					
								F. Transporter's Phone 918-496-0030					
								G. State Facility's ID (Okla.) IW 73005					
								H. Facility's Phone 918-582-9595					
GENERATOR	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity	14. Unit Wt/Vol	1. Waste No.		
	HM	a. WASTE, CORROSIVE LIQUID, POISON N.O.S. UN 2922 RQ					0	0	1	T/C	20,348	Gal	Okla. 064401
	b.	PLACARDED CORROSIVE UNIT WT/VOL: GROSS: 263,400											EPA 2000402396
	c.	TARE: 76,400 NET: 187,000											Okla. EPA
	d.												Okla. EPA
J. Additional Descriptions for Materials Listed Above CAR NUMBER: RIMX 3296 2296 SEAL: 98980						K. Handling Codes for Wastes Listed Above							
15. Special Handling Instructions and Additional Information													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transportation according to applicable international and national governmental regulations.													
Printed/Typed Name BARBARA LANGLEY						Signature <i>Barbara Langley</i>			Date Month Day Year 06 20 85				
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials						Signature <i>M. A. Conzino</i>			Date Month Day Year 06 20 85			
	18. Transporter 2 Acknowledgement or Receipt of Materials						Signature <i>C. L. Mannon</i>			Date Month Day Year			
	Printed/Typed Name C. L. MANNON												
19. Discrepancy Indication Space													
FACILITY	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.												
	Printed/Typed Name VIRGEL A. PRUETT						Signature <i>Virgel A. Pruett</i>			Date Month Day Year 16 28 85			



Industrial Waste Division
 Oklahoma State Department of Health
 P.O. Box 53651
 Oklahoma City, Oklahoma 73152
 (405) 271-5338

NATIONAL EMERGENCY RESPONSE CENTER:
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Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>MS D 99 0 17 4 0 8 1</i>		2. Page 1 of 1		3. Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address VERTAC CHEMICAL CORP P.O. BOX 3, VICKSBURG, MS 39180				A. State Manifest Document Number (Okla.) 19867		B. State Generator's ID (Okla.) 86001	
4. Generator's Phone (601) 636-1231				6. US EPA ID Number <i>ILD 0 0 0 8 0 4 4 3</i>		C. State Transporter's ID (Okla.) N/A	
5. Transporter 1 Company Name ILLINOIS CENTRAL GULF RAILROAD				8. US EPA ID Number <i>MND 0 4 8 3 4 1 7 8 8</i>		D. Transporter's Phone 312-565-1600	
7. Transporter 2 Company Name BURLINGTON NORTHERN RAILROAD				10. US EPA ID Number <i>LOKD 0 0 0 4 0 2 3 9 6</i>		E. State Transporter's ID (Okla.) 4002	
9. Designated Facility Name and Site Address W.J. LAMBERTON INJECTION 2700 S. 25th W. AVE TULSA, OK 74109				14. Unit IW 73005		F. Transporter's Phone 918-496-0030	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers		13. Total Quantity	
a. HM WASTE, CORROSIVE LIQUID, POISON N.O.S. UN 2922 RQ				No. Type 0 0 1 T/C		20,270 Gal	
b. PLACARDED CORROSIVE UNIT WT/VOL						Okla. 064401 EPA D000402396	
c. GROSS: 263,680 TARE: 77,400 NET: 186,280						Okla. EPA	
d.						Okla. EPA	
J. Additional Descriptions for Materials Listed Above CAR NUMBER: RIMX 13336 SEAL: 98981				K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.							
Printed/Typed Name BARBARA XX LANGLEY				Signature <i>Barbara Langley</i>		Date Month Day Year 0 6 2 1 8 5	
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name		Date	
				Signature <i>M. Canziani</i>		Month Day Year 0 6 2 1 8 5	
18. Transporter 2 Acknowledgement or Receipt of Materials				Printed/Typed Name <i>CL MALLONEE</i>		Date	
				Signature <i>CL Mallonee</i>		Month Day Year 0 6 2 4 8 5	
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
Printed/Typed Name VIRGEL A. PRUETT				Signature <i>Virgel A. Pruett</i>		Date Month Day Year 6 12 9 8 5	

Joan K. Leavitt, M.D.
Commissioner

OKLAHOMA STATE
DEPARTMENT OF HEALTH



Board of Health

Edward H. Fite, Jr., M.D.
President

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Vice President

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P.O. BOX 53551
1000 N.E. TENTH
OKLAHOMA CITY, OK 73152

AN EQUAL OPPORTUNITY EMPLOYER

July 1, 1985

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JUL 8 1985

Jack McMillan
Division of Solid/Hazardous
Waste Management
Mississippi Dept. of Natural Resources
P.O. Box 10385
Jackson, MS 39209

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Dear Mr. McMillan:

Enclosed is a copy of Uniform Hazardous Waste Manifest Nos. 53, 54, 55, 56, 57 (twice), and 58 dated May 1985 from Vertac Chemical Corporation to the W.J. Lamberton Injection Well.

This generator is out of compliance with the Oklahoma Rules and Regulations for Industrial Waste Management, and Federal Rules. Rule 40 CFR 262.21 requires a properly completed manifest to be offered prior to transport.

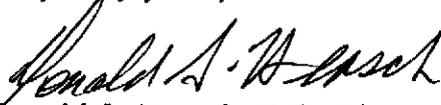
The following information is missing from the above manifests:

- Items 2 and 14,
- Two manifests with the same number (not duplicates), and
- Failure to use Oklahoma Uniform Hazardous Waste Manifest.

Our Division believes you should be aware of this matter and feels the appropriate enforcement action regarding the generator should be left to your discretion.

If you have any questions feel free to call Lillian (Lee) Bosch at the Oklahoma State Health Department, Industrial Waste Division at (405) 271-5338.

Very truly yours,


Donald A. Hensch, P.E., Director
Industrial Waste Division

DAH/LJB/lp

RECEIVED
JUN 7 1985

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. **MSD990174081** Manifest Document No. **53**

2. Page 1 of Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
VERTAC CHEMICAL CORP
P.O. BOX 3, VICKSBURG, MS 39180
4. Generator's Phone (**601-636-1231**)

A. State Manifest Document Number
None

B. State Generator's ID
06001

5. Transporter 1 Company Name
ILLINOIS CENTRAL GULF RAILROAD

6. US EPA ID Number
ILD000804443

C. State Transporter's ID
N/A

D. Transporter's Phone
312-365-1600

7. Transporter 2 Company Name
BURLINGTON NORTHERN RAILROAD

8. US EPA ID Number
MND048341788

E. State Transporter's ID
None

F. Transporter's Phone
312-365-0000

9. Designated Facility Name and Site Address
W.J. LAMBERTON INJECTION WELL
2700 S. 25th W. AVE
TULSA, OK 74109

10. US EPA ID Number
2396 OKD0004022

G. State Facility's ID
EW 73035 EW 73035

H. Facility's Phone
918-383-2595

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers No. Type

13. Total Quantity

14. Unit. Wt./Vol

1. Waste No.

a. ~~HAZARDOUS WASTE, CORROSIVE LIQUID POISON N.O.S. UN 2922 RQ~~

0 0 1 T/C 260,400 GROSS 75,200 TARE

OK: 2004 YES: 2002

b. **PLACARDED CORROSIVE**
UNIT WT/VOL

185,200 NET

20152 gal

c.

d.

15. Special Handling Instructions and Additional Information
SEE NUMBERED BOX 1244
SEAL: 98961
49 365 38

K. Handling Codes for Waste Listed Above

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport in highway according to applicable international and national governmental regulations.

Printed/Typed Name
BARBARA LANGLEY

Signature
Barbara Langley

Date
Month Day Year
04 29 85

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name
R.C. SMITH

Signature
R.C. Smith

Date
Month Day Year
04 29 85

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
C.L. MALLONEE

Signature
C.L. Mallonee

Date
Month Day Year
05 10 85

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name
DAVID E MORANVILLE
Signature
David Moranville
Date
Month Day Year
5 7 85

COPY

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

MSD990174081

Manifest Document No. **54**

2. Page 1 of

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

**VERTAC CHEMICAL CORP
P.O. BOX 3, VICKSBURG, MS 39180**

4. Generator's Phone (**601-**) **636-1231**

5. Transporter 1 Company Name

ILLINOIS CENTRAL GULF RAILROAD

6. US EPA ID Number

ILL000804443

7. Transporter 2 Company Name

BURLINGTON NORTHERN RAILROAD

8. US EPA ID Number

MND048341788

9. Designated Facility Name and Site Address

**W.J. LAMBERTON INJECTION WELL
2700 S.25th W. AVE
TULSA OK 74109**

10. US EPA ID Number

OKD000402396

A. State Manifest Document Number

NONE

B. State Generator's ID

84002

C. State Transporter's ID

N/A

D. Transporter's Phone

312-365-1600

E. State Transporter's ID

4000

F. Transporter's Phone

918-456-0000

G. State Facility's ID

OK-73005

H. Facility's Phone

918-582-9595

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

HM

a. **Waste, Corrosive Liquid Poison N.O.S.
UN 2922 BQ
Placarded Corrosive**

12. Containers No. Type

0 0 1 T/C

13. Total Quantity

**262,000 GROSS
79,600 TARE**

14. Unit (Wt/Vol)

**GROSS
TARE
NET**

1. Waste No.

OK-88040

b. UNIT WT/VOL

c. **19,847 gal**

J. Additional Descriptions for Materials Listed Above

**TRUCK NUMBER: KINK 12646
SERIAL: 98963**

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name
BARBARA LANGLEY

Signature

Date
0 5 | 0 2 | 8 5

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

R.C. SMITH

Signature

R.C. Smith

Date
0 5 | 0 2 | 8 5

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

C.L. MALLONEE

Signature

C.L. Mallonee

Date
0 5 | 0 6 | 8 5

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name

Kevin R. Edwards

Signature

Kevin R. Edwards

Date
5 | 1 | 8 5

GENERATOR

TRANSPORTER

FACILITY

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JUN 7 1985

Form Approved OMB No. 2000-0404 Expires 7-31-86

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No
M.S.D.9.9.0.1.7.4.0.8.3.1.100

Manifest Document No
56

2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
VERTAC CHEMICAL CORP
P.O. BOX 3, VICKSBURG, MS 39180

4. Generator's Phone (601) 636-1231

A. State Manifest Document Number
NONE

B. State Generator's ID
86001

5. Transporter 1 Company Name
ILLINOIS CENTRAL GULF RAILROAD

6. US EPA ID Number
I.L.D.0.0.0.8.0.4.4.3

C. State Transporter's ID
N/A

D. Transporter's Phone
312-565-1600

7. Transporter 2 Company Name
BURLINGTON NORTHERN RAILROAD

8. US EPA ID Number
M.N.D.0.4.83.4.1.7.8.8

E. State Transporter's ID
4002

F. Transporter's Phone
918-496-0030

9. Designated Facility Name and Site Address
W.J. LAMBERTON INJECTION WELL
2700 S. 25th W. AVE
TULSA OK 74109

10. US EPA ID Number
O.K.D.0.0.0.4.0.2.3.9.6

G. State Facility's ID
TW 73005 TW 73039

H. Facility's Phone
918-582-9595

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	1. Waste No.
--------------------	--------------------	-----------------	--------------

a. WASTE, CORROSIVE LIQUID, POISON N.O.S.
UN 2922 RQ
PLACARDED CORROSIVE

DO 1 T/C	260,680 Gross 77,200 Tare	OK:06440 FED:D002
----------	------------------------------	----------------------

b. UNIT WT/VOL
19,965 gal

	183,480 Net	
--	-------------	--

J. Additional Descriptions for Materials Listed Above
CAR NUMBER: RIMX 12796
SEAL: 98991

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

Printed/Typed Name
BARBARA LANGLEY

Signature
Barbara Langley

Date
05 | 14 | 85

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name
R.C. SMITH

Signature
RC Smith

Date
05 | 14 | 85

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
C. MALLONEE

Signature
C. Mallonee

Date
05 | 18 | 85

19. Discrepancy Indication Space
MAY 14 1985

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest, except as noted in Item 19.
SHIPPERS LOAD AND COUNT
M. C. PICKETT, AGENT
VICKSBURG, MISS.

Printed/Typed Name
Rex Herndon

Signature
Rex Herndon

Date
5 | 20 | 85

GENERATOR
TRANSPORTER
FACILITY

ORIGINAL - RETURN TO GENERATOR

7-BLS-C6

JUN 7 1985

Please print or type.
(Form designed for use on a life (12 pitch) typewriter.)

Form Approved OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. **MSD990174081**
Manifest Document No. **56**

2. Page 1 of Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
**VERTAC CHEMICAL CORP
P.O. BOX 3, VICKSBURG, MS 39180**

A. State Manifest Document Number
NONE

4. Generator's Phone (601) **636-1231**

B. State Generator's ID
86001

5. Transporter 1 Company Name
ILLINOIS CENTRAL GULF RAILROAD

6. US EPA ID Number
ILD000804443

C. State Transporter's ID **N/A**

7. Transporter 2 Company Name
BURLINGTON NORTHERN RAILROAD

8. US EPA ID Number
MND048341788

D. Transporter's Phone **312-565-1600**

E. State Transporter's ID **4002**

9. Designated Facility Name and Site Address
**W.J. LAMBERTON INJECTION WELL
2700 S. 25th W. AVE
TULSA, OK 74109**

10. US EPA ID Number
OKD000402396

G. State Facility's ID
IW 73005 *IW73035*

H. Facility's Phone
918-582-9595

HM	Description	12. Containers		13. Total Quantity	14. Unit Wt/Vol	1. Waste No.
		No.	Type			
a.	WASTE, CORROSIVE LIQUID, POISON N.O.S. UN 2922 RQ PLACARDED CORROSIVE	001	T/C	261,920 78,200	Gross Tare	OK:06440 FED:D002
b.	UNIT WT/VOL <i>19,991 gal</i>			183,720	Net	
c.						
d.						

J. Additional Descriptions for Materials Listed Above
**CAR NUMBER: RIMX 12423
SEAL: 98966**

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name Barbara Langley	Signature <i>Barbara Langley</i>	Date Month Day Year 05 15 85
--	-------------------------------------	---

17. Transporter 1 Acknowledgement of Receipt of Materials	Signature <i>R.C. Smith</i>	Date Month Day Year 05 15 85
---	--------------------------------	---

18. Transporter 2 Acknowledgement of Receipt of Materials	Signature <i>CL Mallonee</i>	Date Month Day Year 05 19 85
---	---------------------------------	---

19. Discrepancy Indication Space
MAY 15 1985

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.	Signature <i>Virgel A. Pruett</i>	Date Month Day Year 05 21 85
--	--------------------------------------	---

GENERATOR
TRANSPORTER
FACILITY

ORIGINAL - RETURN TO GENERATOR

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. **MSD990174081** Manifest Document No. **57**

2. Page 1 of Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
VERTAC CHEMICAL CORP
P.O. BOX 3, VICKSBURG, MS 39180

RECEIVED
JUN 7 1995

A. State Manifest Document Number
NONE

B. State Generator's ID
86001

4. Generator's Phone (601) **636-1231**

C. State Transporter's ID
N/A

5. Transporter 1 Company Name
ILLINOIS CENTRAL GULF RAILROAD

6. US EPA ID Number
IL0000080444

D. Transporter's Phone
312-565-1600

7. Transporter 2 Company Name
BURLINGTON NORTHERN RAILROAD

8. US EPA ID Number
MND04834178

E. State Transporter's ID
4002

9. Designated Facility Name and Site Address
W.J. LAMBERTON INJECTION WELL
2700 S. 25th W. AVE
TULSA, OK 74109

10. US EPA ID Number
OKD000402396

F. Transporter's Phone
918-496-0030

G. State Facility's ID
IW 73005 7303

H. Facility's Phone
918-582-9595

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers
No. Type

a. **WASTE, ~~ERRX~~ CORROSIVE, LIQUID, POISON N.O.S.**
IN 2922 HQ
PLACARDED CORROSIVE

13. Total Quantity
259,520 Gross
79,000 Tare
180,520 Net

b. **UNIT WT/VOL**

14. Unit Wt/Vol
OK:06440
RED: D002

c.

d. **19,643 gallons**

J. Additional Descriptions for Materials Listed Above
CAR NUMBER: RMX 12646
SEAL: 98968

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by **EXCESS** according to applicable international and national governmental regulations.

Printed/Typed Name
Barbara Langley

Signature
[Signature]

Date
05 16 85

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name
R.C. Smith

Signature
R.C. Smith

Date
05 16 85

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
C.L. MALLONEE

Signature
C.L. Mallonee

Date
05 20 85

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name
Richard Herndon

Signature
Richard Herndon

Date
05 30 85

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.
M.S.D.9.9.0.R7480827

Manifest Document No.
57

2. Page 1 of

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
**VERTAC CHEMICAL CORP
P.O. BOX 3, VICKSBURG, MS 39180**

JUN 7 1985

A. State Manifest Document Number
NONE

B. State Generator's ID
86001

4. Generator's Phone (601) 636-1231

Waste Management Service

C. State Transporter's ID
N/A

5. Transporter 1 Company Name
ILLINOIS CENTRAL GULF RAILROAD

6. US EPA ID Number
T.T.D.0.0.0.8.0.4.4.4.3

D. Transporter's Phone
312-565-1600

7. Transporter 2 Company Name
BURLINGTON NORTHERN RAILROAD

8. US EPA ID Number
M.N.D.0.4.8.3.4.1.7.8.8

E. State Transporter's ID
4002

9. Designated Facility Name and Site Address
**W.J. LAMBERTON INJECTION WELL
2700 S. 25th W. AVE
TULSA, OK 74109**

10. US EPA ID Number
LOKD000402396

G. State Facility's ID
IW 73005

H. Facility's Phone
918-582-9595

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers

No. Type

13. Total Quantity

14. Unit (Mm, Lb, Vol)

15. Waste No.

a. WASTE, CORROSIVE LIQUID, POISON N.O.S.
UN 2922 RQ
~~PLACARDED CORROSIVE~~

0-0-1 T/C

261,400 Gross
75,800 TARE

Gross
NET

OK:06440
FED:D002

b. UNIT WT/VOL

185,600 NET

(20,262 gallons)

J. Additional Descriptions for Materials Listed Above
**CAR NUMBER: RIMX 12101
SEAL: 98967**

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name
Barbara Langley

Signature
Barbara Langley

Date
6-5-1-685

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name
R.C. Smith

Signature
R.C. Smith

Date
6-5-1-685

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
C. L. MALLONEE

Signature
C. L. MALLONEE
RECEIVED
Illinois Central Gulf R. R. Co.
FRIIGHT OFFICE

Date
0.5 | 20 | 8.5

19. Discrepancy Indication Space
MAY 16 1985

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name
VIRGEL A. PRUETT

Signature
Virgel A. Pruett
SHIPPERS LOAD AND COUNT
M. C. PICKETT, AGENT
VICKSBURG, MISS

Date
5 | 30 | 85

JUN 7 1985

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MSD 990174081

2. Page 1 of 1 Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: VERTAC CHEMICAL CORP, P.O. BOX 3, VICKSBURG, MS 3918

A. State Manifest Document Number: NONE

4. Generator's Phone (601) 636-1231

B. State Generator's ID: 86001

5. Transporter 1 Company Name: ILLINOIS CENTRAL GULF RAILROAD

C. State Transporter's ID: N/A

6. US EPA ID Number: I L D 0 0 0 8 0 4 4 4 3

D. Transporter's Phone: 312-565-1600

7. Transporter 2 Company Name: BURLINGTON NORTHERN RAILROAD

E. State Transporter's ID: 4002

8. US EPA ID Number: M N D 0 4 8 3 4 1 7 8 8

F. Transporter's Phone: 918-496-0030

9. Designated Facility Name and Site Address: W.J. LAMBERTON INJECTION WELL, 2700 S.25th W. AVE, TULSA, OK 74109

G. State Facility's ID: IW 73005

10. US EPA ID Number: O K D 0 0 0 4 0 2 3 9 6

H. Facility's Phone: 918-582-9595

Table with 5 columns: HM, Description, Containers (No., Type), Total Quantity, Unit (Wt/Vol), Waste No. Row a: WASTE, CORROSIVE LIQUID, POISON N.O.S. UN 2922 HQ PLACARDED CORROSIVE. Row b: UNIT WT/VOL.

J. Additional Descriptions for Materials Listed Above: CAR NUMBER: RMX 12444, SEAL: 98969

K. Handling Codes for Wastes Listed Above: OK: 06440, FED: D002

15. Special Handling Instructions and Additional Information: 20,078 gallons

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Printed/Typed Name: Barbara Langley, Signature: [Signature], Date: 05/16/85

17. Transporter 1 Acknowledgement of Receipt of Materials: Printed/Typed Name: R.C. Smith, Signature: [Signature], Date: 05/16/85

18. Transporter 2 Acknowledgement of Receipt of Materials: Printed/Typed Name: C. L. MALLONEE, Signature: [Signature], Date: 05/20/85

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Stacey Whyburn, Signature: [Signature], Date: 5/29/85

June 18, 1985

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor, 5100 Poplar
Memphis, Tennessee 38111

FILE COPY

Dear Mr. Karkkainen:

Re: Part B Application for MSD990714081

As requested by your letter of May 28, 1985, we are granting an extension of the Part B resubmittal date for May 29, 1985 to June 19, 1985. This is to enable Vertac Chemical to submit a more complete closure plan and Part B.

Should you have any questions, please contact our office.

Sincerely,

Charles Estes, P. E.
Division of Solid Waste Management

CE:cm

FILE COPY

June 5, 1985

Ms. Caron Falconer
U.S. Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Dear Ms. Falconer:

Please find enclosed the material you requested. The material represents the latest groundwater information for these facilities.

Should you have any further questions, please contact our office.

Sincerely,



Charles Estes, P.E.
Division of Solid Waste Management

CE:hd
Enclosure



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

May 28, 1985

Mr. Charles Estes
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

This is written confirmation of the conversations between you and Mr. Gradet of IT Corporation.

We will miss the deadline for resubmittal of Part B information so that we may submit a draft closure plan. We will then prepare a revised Part B, presumably in an acceptable format, by June 19, 1985.

Best regards,

Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: A. Gradet
J. Hill



May 23, 1985

Project No. HE-1034

Charles Estes
Environmental Engineer
Bureau of Pollution Control
Mississippi Department of Natural Resources
P.O. Box 10385
Jackson, Mississippi 39209

Vertac Chemical Corporation
Vicksburg, Mississippi
Part B Permit Application
CIB #MS0990714081)

Dear Mr. Estes:

In accordance with our telephone conversation on May 22, 1985, I would like to request an extension of the deadline for responding to your request for additional information on the above referenced permit application (letter to Dick Karkkainen, Vertac Chemical Corporation from Jack McMillan, dated March 29, 1985 attached for reference). As we discussed I would like to respond to your request in the following manner:

- (a) Prepare draft revised closure and post-closure plans for your review. Most of the substantive comments in the March 29 letter involve closure and post-closure plan details. We would submit the draft plans on June 3, 1985. Should there still be major deficiencies or inadequacies we would be prepared to meet with you at your convenience.
- (b) We will submit the revised/reorganized Part B application by June 17, 1985. This would include the revised closure and post-closure plan as well as a response to Item 7 of the March 29 letter.

I hope you are able to agree to this revised schedule. If you have any questions, please contact me at (713) 784-2800.

Sincerely

Alan Gradet
Project Manager

cc: R. D. Karkkainen
J. Hill

Regional Office

IT Corporation • 2925 Briarpark • Suite 405 • Houston, Texas 77042 • 713-784-2800

FILE COPY

April 22, 1985

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor
5100 Poplar
Memphis, Tennessee 38137

Dear Mr. Karkkainen:

Re: Appendix VIII Sampling
MSD990714081

We have reviewed the proposal by ETC Corporation to complete the Appendix VIII sampling at the Vicksburg plant. The proposal meets the requirements of our guidance document. We encourage Vertac Corporation to submit as complete an Appendix VIII scan as possible since EPA is giving very little flexibility in meeting their high goals.

We will continue to review the Appendix VIII scans for QA and QC to insure a good-faith effort by facilities. We will also keep you apprised as the issue continues to evolve.

Sincerely,

Charles Estes, P. E.
Division of Solid Waste Management

CE:hdb



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

REPLY TO: P. O. BOX 3
VICKSBURG, MS 39180
(601) 636-1231

April 15, 1985

Mr. Charles Estes
Mississippi Department of
Natural Resources
Bureau of Pollution Control
P.O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

Vertac plans a second campaign to manufacture DEHPA (diethylhexyl phosphoric acid) beginning the week of May 13, 1985. The run should last approximately two months. As before, all wastewater and/or process waste material generated will be disposed of via an offsite licensed hazardous waste disposal facility.

If you have any questions, please feel free to give me a call.

Sincerely yours,

John G. Hill
Environmental Engineer

JGH/ld

cc - F. Ahlers
- R. Karkkainen



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

APR 11 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

4WD-RM

Mr. Dick Karkkaien
Vertac Chemical Corporation
Suite 2414
5100 Poplar Avenue
Memphis, Tennessee 38137

Re: Vertac Chemical Corporation
EPA I.D. Number MSD 990 714 081

Dear Mr. Karkkaien:

The purpose of this letter is to formally notify you of certain requirements brought about by the Hazardous and Solid Waste Amendments of 1984 (HSWA) that may apply to your facility.

Enclosed is a Fact Sheet that summarizes the new RCRA permitting requirements that apply to hazardous waste facilities. There are two of the requirements in particular to which we want to call your attention. These are both described on page 5 of the enclosed Fact Sheet. They are:

- (1) New units and/or lateral expansions or replacements of existing units that receive waste after May 8, 1985, must meet the double liner and leachate collection requirements as described on page 5. We have also enclosed some information which describes what a new unit, replacement unit or lateral expansion is. In addition you are required to submit a notification to EPA at least 60 days prior to receiving wastes into such units and submit your Part B application within 6 months of this notification (unless your Part B application has previously been called in and is due earlier).
- (2) After May 8, 1985, you will not be able to dispose of bulk or noncontainerized liquid hazardous waste or free liquids contained in hazardous wastes (regardless of whether or not absorbents have been added) in your landfill. After November 8, 1985, you will not be able to dispose of non-hazardous liquid wastes in your landfill.

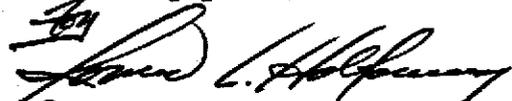
The requirements of the Hazardous and Solid Waste Amendments of 1984 are effective in all states regardless of whether the state hazardous waste program has received authorization under RCRA. These requirements will be administered independently by EPA until such time as they have been incorporated into the state's program and approved by EPA. The state hazardous waste agency will be working with EPA to monitor compliance with these requirements.

The notification previously mentioned that must be submitted at least 60 days prior to receipt of wastes in new units, replacement units or lateral expansions of existing units should be submitted to the EPA Regional Office as follows with a copy to the state hazardous waste agency.

James H. Scarbrough, P.E., Chief
Residuals Management Branch
Waste Management Division
U.S. Environmental Protection Agency
Region IV
345 Courtland Street N.E.
Atlanta, Georgia 30365

Any questions regarding these requirements should be directed to the Waste Engineering Section of this Branch at (404) 881-3433.

Sincerely yours,



James H. Scarbrough, P.E., Chief
Residuals Management Branch
Waste Management Division

Enclosures

March 29, 1985

FILE COPY

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor, 5100 Poplar
Memphis, Tennessee 38137

Dear Mr. Karkkainen:

Re: Part B Submittal
MSD990714061

As we discussed in recent meeting, the most recent Part B Closure Plan needs additional work to be considered complete. We have attached a list of items which need more details. Also, a Part B Completeness Checklist has been enclosed to insure all items are addressed.

Many of Vertac Chemical's responses to our past requests for additional Part B information has not been in a form which could be placed in the original Part B. Vertac Chemical must either submit a complete Part B following a format similar to the Attached Part B Completeness Checklist or resubmit information so that it will fit into the original Part B. A complete Part B that consists of one document, following a format, must be developed for public review and the draft permit.

The additional information for a complete Part B and a corrective action program on a groundwater compliance program with justified alternate concentration limits must be submitted by May 29, 1985.

Should you have any questions, please contact our office.

Sincerely,

Jack McMillan, Director
Division of Solid Waste Management

JM:CE:hdb

b. Detail the costs for the earthwork for all items. The cost must include out the labor, equipment, backfill material, slope to allow transportation, and decontamination costs for each of the items described in the closure plan.

c. Break-out the costs for each individual item for seed, fertilizer, labor and equipment for establishing grass.

d. Provide a detailed description of the procedures and frequencies for the following maintenance activities:



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

REC-117
685 ADP-1 7X 3: 11

March 29, 1985

REPLY TO: P. O. BOX 3
VICKSBURG, MS 39180
(601) 636-1231

INFO: ...
...
...

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Jack M. McMillan, Director
Division of Solid Waste Management
Bureau of Pollution Control
2350 Highway 80 West
Jackson, MS 39209

Dear Mr. McMillan:

Per your request, attached is the completed form, "Information Regarding Potential Releases from Solid Waste Management Units". We have attempted to compile and present the information requested in a complete and concise manner.

If you have any questions, please feel free to give me a call.

Sincerely,

John G. Hill
Environmental Engineer

JGH/ld
Attachment

cc - F. L. Ahlers
- R. Karkkainen



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

March 19, 1985

RECEIVED

MAR 21 1985

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. Chuck Estes
Mississippi Department of
Natural Resources
Bureau of Pollution Control
2350 Highway 80 West
Jackson, MS 39209

Dear Mr. Estes:

Pursuant to our various conversations, meetings, and exchanges of letters on the subject of analysis of groundwater for EPA Appendix VIII compounds, I have solicited and obtained quotations from Environmental Testing and Certification Corporation. ETC Corporation is the only laboratory that I am reasonably certain has an approach to the analyses that meets Mississippi requirements.

I have attached the communications received from ETC Corporation. Please note that ETC Corporation is reluctant to conduct the analyses without prior indication from Mississippi that their proposed analysis plan is acceptable. Since the Federal regulations have not set the analytical protocol in concrete, I have no independent way of knowing whether ETC Corporation's approval is acceptable to Mississippi or if they perform the analyses that Vertac has made "best efforts" as ordered by the Bureau of Pollution Control. Since you are familiar with ETC Corporation and indeed have met with them, I am reasonably certain that their work will be satisfactory to the Bureau of Pollution Control; however, I would like a representation to that effect in writing.

ETC Corporation has offered to meet with us. Since you have already met with them, I would prefer the meeting to take place after they have completed their work.

Best regards,

Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: J. G. Hill





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

MAR 12 1985

4WD-RM

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Dick Karkkainen
Vertac Chemical Corporation
Suite 2414
5100 Poplar Avenue
Memphis, Tennessee 38137

Re: Vertac Chemical Corporation RCRA Part B Application
EPA I.D. Number MSD 990 714 081

Dear Mr. Karkkainen:

On November 8, 1984 President Reagan signed the Hazardous and Solid Waste Amendments of 1984. These amendments to the Resource Conservation and Recovery Act (RCRA) have a number of provisions affecting hazardous waste permitting that are immediately effective for any facilities whose RCRA hazardous waste permit had not been issued as of November 8, 1984. In addition the provisions are applicable in all states whether or not the state has received interim or final authorization under RCRA.

The State of Mississippi has been granted authorization for those portions of the RCRA Hazardous Waste Program that were in effect prior to the passage of the Hazardous and Solid Waste Amendments of 1984. Until Mississippi has made the necessary program revisions and received authorization from EPA for the provisions of the 1984 amendments, EPA will administer the requirements of the 1984 amendments. In order to minimize the impact of these amendments on permit applicants the EPA regional office and the Mississippi Department of Natural Resources will work closely together by requiring only one Part B application (i.e. that addresses both the Part B requirements of the currently authorized state program and the new requirements of the 1984 amendments) that will be jointly reviewed by both agencies.

If the processing of your application is completed prior to the state being authorized for the provisions of the 1984 amendments then it will be necessary for both EPA and Mississippi to issue permits to your facility. The state permit will include those portions of the Hazardous Waste Program that were in effect prior to passage of the 1984 Amendments and the EPA permit will include those new portions of the RCRA program which have been brought about by the 1984 amendments.

Both permits together would then constitute your RCRA hazardous waste permit. If at the time your permit is issued, the state has received authorization for those portions of the RCRA program brought about by the 1984 amendments then only a state permit will be issued and it will be your RCRA permit.

The purpose of this letter is to notify you that your RCRA Part B permit application must be revised to incorporate the requirements of the Hazardous and Solid Waste Amendments of 1984. Your revised Part B application should be submitted on or before October 8, 1985.

This request for a revision to your RCRA Part B permit application and the associated due date of October 8, 1985 for submitting your revisions are related only to the new requirements brought about by the 1984 Amendments. In the meantime the review and processing of the Part B application you have already submitted will continue and you may be required to make corrections and revisions to your original Part B application that will need to be submitted prior to October 8, 1985.

The hazardous waste regulations at 40 CFR §270.10(e)(5) state that:

Failure to furnish a requested Part B application on time, or to furnish in full the information required by the Part B application, is grounds for termination of interim status under Part 124. In addition, the HSWD of 1984 mandates that all land disposal facilities make a complete and final application for a RCRA permit within twelve months from the date of enactment or interim status will terminate.

Failure to submit a revised Part B application by the due date may result in the denial of your RCRA permit. Consequently, you should be sure your revised Part B application adequately addresses all of the requirements of the 1984 Amendments. Please submit two (2) copies to the Mississippi Department of Natural Resources and two (2) copies to the EPA office. The mailing addresses of the two agencies are as follows:

U.S. Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30365
Attention: James H. Scarbrough

and

Division of Solid/Hazardous Waste Management
Mississippi Department of Natural Resources
Post Office Box 10385
Jackson, Mississippi 39209
Attention: Mr. Jack M. McMillan

In accordance with 40 CFR Part 2, you may claim certain information in your Part B application as confidential if such a claim can be substantiated. In order to claim information confidential you should:

1. Determine whether or not the claim of confidentiality can be substantiated; substantiate it (concerning each type of information claimed) by addressing the applicable elements of 40 CFR 2.208, a copy of which is enclosed;
2. Precisely describe which information is claimed as confidential or stamp each page that contains such information with the words "Confidential" or "Confidential Business Information;"
3. Package all pages containing confidential information separately from your total Part B application package. This means that your Part B submittal would consist of two packages: (a) the Part B application without confidential information, and (b) the portion of your Part B application that has been claimed as confidential; and
4. State clearly in your transmittal letter that confidential information is included.

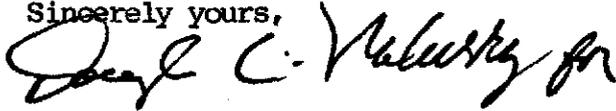
If no claim of confidentiality is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted and substantiated, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).

Enclosed with this letter is also a summary of the new requirements contained in the 1984 Amendments which affect RCRA permit applications now being processed. All of these requirements may not be applicable to your facility. We have also enclosed some additional information to help explain the new requirements. For two of the new requirements, (1) exposure assessments and (2) the double liner requirement; additional guidance being developed by EPA Headquarters will be provided to you as soon as it becomes available.

Your revised Part B application may be in the form of revised or added pages to be inserted into your original Part B submissions. Revised or new pages should show page number and date (example: 32(12/01/83) would be page 32, revised or added 12/01/83. The revision to your Part B application must include a certification as required by 40 CFR §270.11(d).

Should you have any questions concerning these requirements, please contact Mr. David Lee, Mississippi Division of Solid/Hazardous Waste Management, at 601/961-5171 or alternately, Ms, Beverly A. Spagg, EPA at 404/881-3067 or to discuss the application requirements in more detail.

Sincerely yours,



James H. Scarbrough, P.E., Chief
Residuals Management Branch
Waste Management Division
Region IV



Charles H. Chisolm, Director
Bureau of Pollution Control
Mississippi Department of Natural
Resources

Enclosures

cc: John Hill

February 28, 1985

FILE COPY

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor, 5100 Poplar
Memphis, Tennessee 38137

Dear Mr. Karkkainen:

Attached is the Bureau's recommended guidance for analysis of Appendix VIII constituents, as required by MHWMR 270.14(c). In order for your permit application to be considered complete you are required to submit the complete scan. We recognize that individual facilities may of necessity need to improvise or in some cases substitute certain site-specific constituents into the list. We intend to evaluate the good-faith efforts taken toward providing a complete Appendix VIII scan. You are reminded that failure to supply a complete application is grounds for denial of the permit and/or termination of interim status.

Prior to conducting sampling and analysis, we would welcome the opportunity of discussing these requirements with you, and to discuss any site-specific or waste specific variances (e.g., exotic compounds) from the Appendix VIII list. If you have any questions, please contact the designated project officer or me at 601-961-5062.

Sincerely,

Jack McMillan, Director
Division of Solid Waste Management

JM:JH:cm
Attachment

Vertac Chemical Corporation
Status Report

Process History:

Vertac Chemical Corporation currently operates an impoundment as a hazardous waste storage facility. The impoundment receives runoff from the facility as well as spills and leaks from process operations. The facility has manufactured pesticide and herbicide products containing atrazine, toxaphene and DNEP in the past. Presently dinoseb (DNEP) is the primary process contributing to the process wastewater inflow to the impoundment.

Regulatory History:

Vertac Chemical Corporation completed a Part A application in November, 1980, to operate the impoundment under the interim status (Part 265) regulations of the hazardous waste rules. However, Vertac's processes are not listed under the hazardous waste regulations as a process to be regulated. Also, the discharge of wastewater containing discarded commercial chemical products, or chemical intermediates, which are listed, is not regulated if they constitute "de minimis losses". BPC has taken the position that the facility is so sloppily operated that the wastewater entering the impoundment is considered to be a hazardous waste and not "de minimis losses". Therefore, we have continued to regulate the facility.

In August, 1983, Vertac Chemical Corporation submitted a Part B application to receive a final permit to operate the impoundment. The Part B application is not complete. The facility has changed closure plan several times and is still collecting groundwater data to characterize apparent groundwater contamination. One well near the impoundment has detected 1 ppm of DNEP.

Vertac Proposal:

Vertac Chemical Corporation has asked BPC to consider a proposal to revise process sewer drains around the DNEP process, formulating and packaging areas such that DNEP spills and water used to clean up the spills will be contained locally and not drain to the surface impoundment. Vertac would also remove contaminated sludge and soil in the impoundment to a specified level. The impoundment would then be considered closed under RCRA and groundwater monitoring/clean-up would continue under post-closure.

Problems:

The future inflow to the impoundment could be monitored to insure that concentrations are low enough to be considered "de minimis losses". However, the proposed closure of the impoundment would not fit EPA's requirement for closure as a landfill (capping) since some soil contamination will most probably be left and evidence indicates groundwater contamination may exist. The Industrial Wastewater Section believes the impoundment should be left open to treat runoff from the plant and act as an emergency spill control impoundment under NPDES.

BPC Options:

1. Withdraw interim status for the facility and obtain a Commission Order or Consent Decree allowing the facility to close the impoundment as proposed and allowing continued use of the impoundment under NPDES. Also, require groundwater assessment/clean-up.
2. Require Vertac to complete the Part B including a closure plan describing a landfill closure (capping). Then after new process sumps have been constructed, allow the facility to amend the closure plan to clean the impoundment to our satisfaction and continue operating under NPDES. Groundwater monitoring/clean-up would be covered under a RCRA post-closure permit.
3. Require Vertac to complete the Part B application ^{including a plan describing a} ~~with~~ closure ~~as a~~ landfill ^{closure} (capping). Within four years, require Vertac to either retrofit the impoundment (double liner and double leachate collection system) as per RCRA Reauthorization law or close the impoundment as a landfill. Closing as a landfill would mean the facility would have to construct a new NPDES impoundment which would only accept run-off from the plant.

CE:hdb



VERTAC CHEMICAL CORPORATION
24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-8851

TELEX 53927

February 25, 1985

1985 FEB 27 11 00 50

Mr. Chuck Estes
Hazardous Waste Section
Mississippi DNR
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

Attached is a copy of an article pointing out the difficulties in obtaining pollution liability insurance.

Contrary to my previous hope, I now find that we are unable to pass the financial tests as a mechanism for financial assurances.

Best regards,

Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: J. Hill

DIVISION OF SOLID WASTE

REVIEWED BY MA

DATE _____

COMMENTS sent to

EPA 11/16/87



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

February 22, 1985

RECEIVED
FEB 25 1985
DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. Chuck Estes
Hazardous Waste Section
Mississippi DNR
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

Attached is information that may be of interest to you. It is information from the State of Wisconsin on acceptable levels of various pesticides in groundwater. As you probably know concerns have been developing in agricultural areas where pesticides are being used that groundwater has become contaminated; hence, enforcement limits are being established. Please refer to the information on Dinoseb (Dintrobetyl Phenol). I believe this information can be applied to the groundwater around our Vicksburg surface impoundment (determined to be a hazardous waste management unit by the Bureau of Pollution Control) in the establishment of acceptable concentration limits.

Best regards,

Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: J. McMillan
J. Herrmann
J. Hill

Submitted to
BPC, DNR
2/1/85

BEFORE THE
DEPARTMENT OF NATURAL RESOURCES
NOTICE OF PUBLIC HEARING

1983 Wisconsin Act 410 created Chapter 160, Stats., which requires the Department to establish, in administrative rules, numerical groundwater quality standards, the points at which the standards apply, the procedures for determining exceedances of standards and the range of responses to standards exceedances. Proposed ch. NR 140, Wis. Adm. Code, has been developed to implement the requirements of Chapter 160, Stats. The rules establish a two-tiered system of enforcement standards based on federal standards and preventive action limits at a percentage of the enforcement standard.

Section 160.11, Stats., requires the Department of Natural Resources, with the assistance of the Department of Health & Social Services, to prepare a document describing the information and methodology used and the conclusions reached in establishing proposed enforcement standards. The Department must make the document available to the public, and anyone may submit written questions on the document to the Department of Natural Resources. The Department of Natural Resources, with the assistance of the Department of Health and Social Services, will respond to questions previously submitted in writing at a public hearing.

NOTICE IS HEREBY GIVEN that the document describing the information and methodology used and the conclusions reached in establishing the enforcement standards in proposed ch. NR 140, Wis. Adm. Code, is available from the Department of Natural Resources. Written questions on the document may be submitted to the Department of Natural Resources until February 8, 1985. Responses to written questions will be presented at the hearing. In order to obtain the document or to submit written questions on the document, write to Mr. David Lindorff, DNR, Bureau of Water Resources Management, P.O. Box 7921, Madison, WI 53707. The document may also be obtained by calling Mr. Lindorff at (608)266-9265.

NOTICE IS HEREBY FURTHER GIVEN that said hearing will be held on:
February 14, 1985 - Room 011, GEF 3,
Thursday 125 S. Webster St.
Madison, WI 53707
at 1:00 p.m.

Since the document relates to the establishment of enforcement standards in proposed ch. NR 140, Wis. Adm. Code, the Department will extend the time for public comment on the proposed enforcement standards. Therefore, comments on proposed ss. NR 140.10 (and table 1) and NR 140.12 (and table 2) may be submitted to Mr. David Lindorff, at the address given above, no later than February 15, 1985. A copy of proposed ch. NR 140, Wis. Adm. Code, may also be obtained from Mr. Lindorff.

Dated at Madison, Wisconsin January 11, 1985

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By Carroll D. Besadny
Carroll D. Besadny, Secretary

APPENDIX II

GROUNDWATER CONTAMINANTS FOR WHICH FEDERAL
MAXIMUM CONTAMINANTS LEVELS ARE ESTABLISHED

CATEGORY I

<u>Parameter</u>	<u>Recommended Enforcement Standard (milligrams per liter)</u>	<u>References</u>
Nitrate + Nitrite (asN)	10.	Federal Register, <u>40</u> , 1975 (December 24) page 59570
Bacteria, Total Coliform	a) Membrane Filter: Coliform shall not exceed 1 per 100 ml. b) Fermentation Tube: Coliform shall not be present in any of the 10 ml. portions.	Federal Register, <u>40</u> , 1975 (December 24) page 59571
Radium 226 and 228	5 picocuries/liter	Federal Register, <u>41</u> , 1976 (July 9) page 23404
Arsenic	.000002	Federal Register, <u>40</u> , 1975 (December 24) page 59570 USEPA. 1980. <u>Ambient Water Quality Criteria for Arsenic</u> . Page C-114 (EPA 440/5-80-021)
Chromium	.025	Federal Register, <u>40</u> , 1975 (December 24) page 59570 USEPA. 1980. <u>Ambient Water Quality Criteria for Arsenic</u> . Page C-34 (EPA 440/5-80-035)
Lead	0.05	Federal Register, <u>40</u> , 1975 (December 24) page 59570
Barium	1	Federal Register, <u>40</u> , 1975 (December 24) page 59570

GROUNDWATER CONTAMINANTS FOR WHICH FEDERAL
 MAXIMUM CONTAMINANTS LEVELS ARE ESTABLISHED

CATEGORY I

<u>Parameter</u>	<u>Recommended Enforcement Standard (milligrams per liter)</u>	<u>References</u>
Selenium	0.01	Federal Register, <u>40</u> , 1975 (December 24) page 59570
Fluoride	2.2	Federal Register, <u>40</u> , 1975 (December 24) page 59570
2,4-Dichlorophenoxy- Acetic Acid	0.1	Federal Register, <u>40</u> , 1975 (December 24) page 59571

CATEGORY II

Mercury	0.002	Federal Register, <u>40</u> , 1975 (December 24) page 59570
Cadmium	.00003	Federal Register, <u>40</u> , 1975 (December 24) page 59570 USEPA. 1980. <u>Ambient Water Quality Criteria for Cadmium</u> . Page C-60-66 (EPA 440/5-80-02j)
Trihalomethanes, Total	0.10	Federal Register: <u>44</u> , 1979 (November 29) page 68641
Methoxychlor	0.1	Federal Register, <u>40</u> , 1975 (December 24) page 59570

**GROUNDWATER CONTAMINANTS FOR WHICH FEDERAL
MAXIMUM CONTAMINANTS LEVELS ARE ESTABLISHED**

CATEGORY III

<u>Parameter</u>	<u>Recommended Enforcement Standard (milligrams per liter)</u>	<u>References</u>
Silver	0.05	Federal Register, <u>40</u> , 1975 (December 24) page 59570
Toxaphene	.0000007	Federal Register, <u>40</u> , 1975 (December 24) page 59570
Endrin	0.0002	Federal Register, <u>40</u> , 1975 (December 24) page 59570
2,4,5-Trichlorophenoxy- propionic Acid	0.01	Federal Register, <u>40</u> , 1975 (December 24) page 59571
Lindane	.00002	Federal Register, <u>40</u> , 1975 (December 24) page 59570
Beta Particle and Photon Radioactivity	Average annual concentration of beta particle and photon radio- activity from man-made radio- nuclides in water shall not produce an annual dose equivalent to the total body or any internal organ greater than 4 millirem/ year (enforcement standard), or 0.4 millirem/year (preventive action limit)	Federal Register, <u>41</u> , 1976 (July 9) page 28404

GROUNDWATER CONTAMINANTS FOR WHICH FEDERAL MAXIMUM
CONTAMINANTS LEVELS ARE NOT ESTABLISHED BUT OTHER FEDERAL
NUMBERS ALLOW DEVELOPMENT OF AN ENFORCEMENT STANDARD

CATEGORY I

<u>Parameter</u>	<u>Recommended Enforcement Standard (milligrams per liter)</u>	<u>References</u>
Aldicarb	0.01	EPA-ODW: Health Advisory, 1982 (August 19) page 15
Trichloroethylene	.0018	Federal Register, <u>49</u> , 1984 (June 12) page 24352
Tetrachloroethylene	.001	Federal Register, <u>49</u> , 1984 (June 12) page 24352
Benzene	.00067	Federal Register, <u>49</u> , 1984 (June 12) page 24334
1,2-Dibromoethane (EDB)	.000010	Cotruvo, J.A. Personal Communication. September, 1984
Vinyl Chloride	.000015	Federal Register, <u>49</u> , 1984 (June 12) page 24334
1,2-Dichloroethane	.0005	Federal Register, <u>49</u> , 1984 (June 12) page 24334
1,1-Dichloroethylene	.00024	Federal Register, <u>49</u> , 1984 (June 12) page 24334
Uranium, Total	10 picocuries/liter	Federal Register, <u>41</u> , 1976 (July 9) page 28404

GROUNDWATER CONTAMINANTS FOR WHICH FEDERAL MAXIMUM
CONTAMINANTS LEVELS ARE NOT ESTABLISHED BUT OTHER FEDERAL
NUMBERS ALLOW DEVELOPMENT OF AN ENFORCEMENT STANDARD

CATEGORY I

<u>Parameter</u>	<u>Recommended Enforcement Standard (milligrams per liter)</u>	<u>References</u>
Toluene	.343	EPA Health Advisory, March, 1982, page 15
Carbofuran	.005	EPA - Health Advisory, February, 1980, page 3
Methylene Chloride	0.15	EPA - Health Advisory, for Dichloromethane, March, 1981, page 7
Cyanide	.2	USEPA. 1980. <u>Ambient Water Quality Criteria for Cyanides.</u> Page C-25 (EPA 440/5-80-037)

CATEGORY II

1,2-Dibromo-3- Chloropropane (DBCP)	.00005	Cotruvo, J.A. Personal communication, August, 1983
Dinoseb	0.013	USEPA. <u>Surveillance Document</u> , Transmittal No. 6, March 6, 1981, page 7
Simazine	2.15	EPA - OPP (1976), EPA Contract 68-011904: Initial Scientific and Mini Economic Review, Simazine

GROUNDWATER CONTAMINANTS FOR WHICH FEDERAL MAXIMUM
CONTAMINANTS LEVELS ARE NOT ESTABLISHED BUT OTHER FEDERAL
NUMBERS ALLOW DEVELOPMENT OF AN ENFORCEMENT STANDARD

CATEGORY II

<u>Parameter</u>	<u>Recommended Enforcement Standard (milligrams per liter)</u>	<u>References</u>
1,1,1-Trichloroethane	0.2	Federal Register, <u>49</u> , 1984 (June 12) page 24352
1,1,2-Trichloroethane	.006	USEPA. 1980. <u>Ambient Water Quality Criteria for Chlorinated Ethanes</u> . Page C-114 (EPA 440/5-80-029)
Xylene	0.62	EPA - ODW: <u>Advisory opinion for Xylenes</u> (October 13) 1981, page 7
p-Dichlorobenzene (1,4-Dichlorobenzene)	0.75	Federal Register, <u>49</u> , 1984 (June 12) page 24352



State of Wisconsin

DEPARTMENT OF HEALTH AND SOCIAL SERVICES

January 14, 1985

DIVISION OF HEALTH
MAIL ADDRESS:
1 WEST WILSON STREET
P.O. BOX 309
MADISON, WISCONSIN 53701

Mr. Lyman F. Wible
Division of Environmental Standards
Department of Natural Resources
P.O. Box 7921
Madison, WI 53707

Dear Mr. Wible:

On October 31, 1984, I sent the list of recommended groundwater enforcement standards in accordance with ss160.05(3), (4), and (b) Wisconsin Stats. The list provided only the basic reference documents used in development of individual standards.

Attached is the summary document of the scientific basis used in the development of our recommendations. The summary document abstracts all information from the references listed.

Multiple copies of this document will be available at the public hearing on Monday, January 14, 1985.

Sincerely,

Kathryn Morrison
Administrator

Attachment

PUBLIC HEALTH RELATED GROUNDWATER STANDARDS

Summary of Scientific Support Documentation for NR140.10

Submitted by

**Wisconsin Department of Health and Social Services
Division of Health**

**Henry A. Anderson, M.D., Chief
Dave Belluck, Ph.D., Research Scientist II
Sam K. Sinha, Ph.D., Research Scientist II
Section of Environmental and Chronic Disease Epidemiology**

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BACKGROUND

Groundwater contamination by organic and inorganic chemicals, radionuclides, metals and/or microorganisms has occurred throughout the United States and is being detected with increased frequency. For many years the land surface and subsurface were considered safe areas for convenient disposal of waste and non-waste products. Recent evidence shows that soils containing disposal wastes possess limited capacities to metabolize contaminants into harmless products. Many toxic chemicals, rather than being changed into harmless compounds through natural soil processes, percolate unchanged through the soil and into aquifers. Although detailed quantitative estimates of the extent of groundwater contamination are unavailable, the presence of these chemicals in the nation's groundwater warrants national attention. Groundwater contaminants, especially organic chemicals, are associated with adverse social, environmental, economic, and health impacts.

Groundwater Contamination and Its Impacts

Groundwater is an important natural resource in the United States upon which Americans' rely for about 50% of their drinking water supplies, 80% of rural domestic and livestock needs, about 40% of irrigation needs, numerous commercial activities, and almost 25% of self-supplied industrial needs (other than thermoelectric power). Groundwater is also used for stream flow maintenance, as a barrier to salt-water intrusion and is an intentional and unintentional depository for both waste and non-waste products.

The reliance of states and regions on groundwater supplies varies significantly in the United States. Groundwater used for public water supplies varies from 11% in the Great Lakes region to 75% in the Rio Grande

region, for rural uses from 12% in Upper Colorado to 100% in New England, and for irrigation from 1% in the Upper Colorado to more than 90% in the Upper Mississippi.

Scientists believe that only a very small percentage of groundwater supplies are actually contaminated. However, contaminated aquifers are of significant public health concern because of their location under population centers and communities' reliance upon groundwater for drinking water.

Public concern due to groundwater pollution has focused upon the potential for causing adverse human effects. Lacking comprehensive estimates of groundwater quality in the United States or Wisconsin, it is impossible to accurately assess the magnitude and exact nature of the public health impacts of toxicant exposures from groundwater usage. Estimation of the potential human health impacts from exposure to individual contaminants is performed through the process of risk assessment. Risk assessment uses models of animal and human biological systems to estimate the likelihood of potential illnesses resulting from contaminant exposure. Information used in models to estimate human health impacts and propose health risk reduction regulatory limits on pollution levels include: adverse effects of a given compound (acute, chronic, carcinogenic, mutagenic, and teratogenic); the toxicity of a compound in terms of dosage level required to elicit an adverse health effect; exposure routes; the frequency the compound is found in groundwater; and the number of potentially exposed individuals. While data exists to perform some level of risk analysis for most compounds, the information frequently lacks the precision needed to perform quantitative human health impact assessment. Human exposure data is usually non-existent and risk assessments must rely on extrapolating from high dose animal experiments to low dose human exposure.

Data on individual human exposure to toxic substances in groundwater is almost totally lacking. Nearly insurmountable problems exist to conducting valid epidemiological investigations to detect incontrovertible human health impacts of groundwater pollution. It would be necessary to know, on an individual toxicant basis, the amount of exposure from groundwater alone (as opposed to exposure from air, food, and surface water), the number of persons exposed to various toxicant concentrations, and the health effects of multiple pollutant interactions when more than one toxicant is found in an aquifer.

While it is difficult to measure the lifelong health impacts of groundwater contamination, the nature of the contamination is known. Over 200 substances have been detected analytically in groundwater. Many of the chemicals are commonly used commercial, industrial and household products. Limited toxicological data is available for some of these compounds, including their adverse effects on animals and humans, toxicity levels, and ranges of contaminant concentrations in groundwater. However, a review of toxicological data from studies on laboratory animals, acute exposures to humans, quantitative human health studies conducted at the site of groundwater contamination, data on human health impacts of specific chemicals, and anecdotal information suggests that the consumption of chemically contaminated groundwater can result in acute, subchronic, and chronic human health impacts.

Substances found in groundwater are known to affect all organ systems but most commonly affect the central nervous system, liver, kidney, cause eye and skin irritation, and result in malignancies. The paramount factor determining whether damage could occur is the dose (amount) of the toxic agent present. The Office of Technology Assessment (OTA) lists the following chemicals as

being associated with adverse health effects:

1. Liver, kidney, and central nervous system toxicants include: ethylbenzene and toluene (alkyl-substituted benzenes); carbon tetrachloride, chloroform and TCE (halogenated aliphatic hydrocarbons); bromobenzene, PBBs, and PCBs (halogenated aromatic hydrocarbons), chlordane, DDT, and toxaphene (chlorinated hydrocarbon pesticides); and some heavy metals.
2. Known or suspected carcinogens which have been found in groundwater include several aromatic hydrocarbons (benzene, benzidine, and MOCA), hydrocarbons with specific elements such as N,P,S,Cl,Br,I,F (aldrin, carbon tetrachloride, dichlorobenzidine, DDT, 1,2-Dichloroethane, 1,1-dichloroethylene, dieldrin, dioxins, Bis-2-ethylhexylphthalate, heptachlor, hexachloroethane, PCBs, simazine, tetrachloroethanes, 1,1,2-trichloroethylene, and vinyl chloride), and metals (antimony, barium, cadmium, chromium, and nickel).
3. Compounds found in groundwater which can damage the reproductive system or cause birth defects include DBCP, vinyl chloride, EDB, benzene, toluene, xylene, some chlorinated ethanes and phthalate esters, PCBs, and dioxins.
4. Some compounds found in groundwater might be expected to cause skin and eye irritation, particularly during bathing and showering. Available data suggests that these effects are reversible after cessation of exposure.

Some of the more recently identified contaminants of groundwater have not yet been fully investigated for their toxicity to animals and/or humans. Thus, toxicologists have been asked to develop guidelines determining the health and environmental effects of these toxicants to which humans may be currently

exposed. In addition to the paucity of information on single toxicants, knowledge of possible interactions of combinations of groundwater contaminants is only now beginning to be studied in the laboratory. Groundwater contamination by several chemicals is a common occurrence. While toxicologists may be able to perform a valid health risk estimation when one chemical is present in groundwater, the presence of several compounds makes such estimations more complicated because the current levels of toxicological knowledge do not provide the information necessary to know if the interactions of several chemicals will cause an additive increase in toxicity (sum of the risks associated with each compound to obtain a total risk level), a synergistic effect (a toxic effect greater than the sum of the risks), an antagonistic effect (a toxic effect less than the sum of the risks), or no effect on the toxicity of a given compound.

The synergistic effects of several groundwater contaminants and alcohol ingestion has been documented. The liver toxicity of carbon tetrachloride, TCE and 1,1,1-trichloroethane is greatly increased in the presence of alcohol. The liver toxicity of TCE and PCE is also affected by Arochlor 1254, a PCB product.

Increasing the toxicologic knowledge base for chemical pollutants is a national priority. While a great deal is known about many chemicals, there is always a need for additional, more precise and extensive studies. Until a data base is complete, the currently utilized risk assessment techniques guidelines are cautious. The dynamic nature of the growth in toxicologic understanding means guidelines and standards will change to reflect the more precise data.

The Wisconsin Experience

The State of Wisconsin, with the passing of 1983 Wisconsin 410, has recognized the importance of groundwater protection and has mandated the Departments of Natural Resources and Health and Social Services to set groundwater toxicant enforcement standards. Groundwater provides nearly 70% of Wisconsin's drinking water and is the major source of water for industry and agriculture. Pesticides and Volatile Organic Chemicals (VOCs) are the two largest groups of man-made pollutants that have been found to contaminate groundwater.

Pesticides, applied to agricultural fields, can percolate down through the soil and enter groundwater as the original toxic pesticide or as toxic or non-toxic pesticide metabolites. The DNR's Groundwater Pesticide Sampling Program Summary for July 23, 1983 to June 25, 1984 reported aldicarb (Temik) as the predominant contaminant of Wisconsin groundwater with atrazine (Aatrex) a far second. Pesticides occasionally found in groundwater include metribuzin (Sencor), carbofuran (Furadan), chloramben (Amiben), dacthal metabolites, dinoseb (Dinitro), metolachlor (Dual), butylate (Sutant+), alachlor (Lasso), and ethylenedibromide (EDB).

Volatile Organic Chemicals (VOCs) are common industrial and household chemicals which are being found in surface and groundwater. VOCs include metal degreasers, solvents, cleansers, and dry cleaning agents and have been used by gas stations, painting operations, metal fabricators and finishers, electronics firms and many other businesses.

Protecting the groundwater from contamination is of great concern because of the serious social, economic, environmental and human health implications should substance concentrations reach unacceptable levels. The State of

No 570-
ESTABLISHED

Wisconsin is expanding groundwater monitoring for chemical contaminants and is evaluating the potential human health effects of groundwater contamination. DNR, with the toxicological assistance of DHSS, is proposing to set enforcement standards as required by 1983 Wisconsin 410 for the 40 compounds which follow. A brief toxicologic summary as well as the rationale for each proposed standard is provided for each substance. A continuing program of toxic substance evaluation by DHSS and DNR will result in the subsequent establishment of groundwater pollutant enforcement standards for additional chemicals.

References:

Protecting the Nation's Groundwater from Contamination.

(Washington, D.C.: U.S. Congress, Office of Technology Assessment, OTA-233, October, 1984). 244 p.

Groundwater Pesticide Sampling Program Summary, DNR, Transmitted November 28, 1984

Introduction:

Dinoseb is a dinitrophenol herbicide, fungicide, insecticide, and preharvest desiccant on various agricultural field crops, fruits, vegetables, and nuts. It is applied as a preplant, preemergence, or postemergence spray. Dinoseb is produced in the U.S. by several manufacturers including ~~Dow Chemical Company~~, ~~Drexel Company~~, and Vertac Chemical Corporation. EPA estimates that 6.15-10.85 million pounds of dinoseb are used domestically and that 3.0 million pounds are exported annually. The greatest quantities of dinoseb are used on peanuts (1.4-1.8 million pounds) and cotton (0.6-0.8 million pounds).

Dinoseb is insoluble (52 ppm) in water and soluble in most organic solvents. While stable to hydrolysis, dinoseb is subject to photodecomposition. Data from Wisconsin DNR's Groundwater Pesticide Sampling Program Summary (from July 23, 1983 to June 25, 1984) shows dinoseb in two samples from Portage County. Soil mobility studies reviewed by the USEPA show that dinoseb should remain in the top foot of soil during the first year after application with volatilization from soil surfaces expected. EPA rates dinoseb as possessing high acute toxicity and notes that environmental fate assessment data is lacking for many dinoseb products. Dinoseb's substantial use on food commodities and lack of monitoring data to evaluate human exposure risks make this compound of interest to FDA.

Human Exposure Routes:

Major dietary exposure to dinoseb comes from the compound's use on wheat and various fruits and vegetables. Dermal and respiratory exposures are of significant concern to pesticide applicators and agricultural workers.

Acute Toxicity:

*Oral LD₅₀ (rats): 58 mg/kg b.w.

*Oral LD₅₀ (guinea pigs): 25 mg/kg b.w.

Chronic Toxicity:

In a 6-month study of rats fed commercial grade dinoseb at 0, 0.005, 0.01, 0.02 and 0.05% of the diet, the animals showed growth suppression at 0.02 and 0.05% and mortality at 0.05%. A 90-day study, in which dogs were administered commercial grade dinoseb at 0, 0.005, 0.01, 0.02, and 0.03% of the diet, showed slight growth retardation, increased liver weight, and mural endocarditis at the two highest levels.

Human Health Effects:

Dinoseb is a metabolic stimulant and may cause symptoms in humans including increased body temperature, sweating, excessive fatigue, excessive thirst, and nausea.¹

Limited human data indicates that high exposure to dinoseb can result in a variety of physical and psychological symptoms. So far, no clinical data are available on chronic human exposures. Acute symptomology includes fatigue, sweating and psychological changes. In one case report on dinoseb intoxication, a tractor driver required hospitalization because one eye was accidentally contaminated with diluted dinoseb sprays, causing localized pain and swelling which persisted for 3 days and was followed by a complete recovery.

Mutagenicity:

No data was available for review.

Carcinogenicity:

No significant increase in tumors were noted in 2 strains of mice subjected to the highest tolerated dose for 18 months.

Teratogenicity/Reproductive Effects:

Rats fed commercial grade dinoseb (96.8%) at 0, 2.5, 5.0 and 10 mg/kg b.w./day from days 6-15 of gestation showed no anomalies. Mice fed similar commercial grade dinoseb given orally at 0, 20, 32 and 50 mg/kg/ b.w./day during various periods of gestation (days 10-12, 14-16, or 8-16) showed maternal deaths at the high dose level and maternal toxicity at all levels. Embryotoxicity was also seen. There were no teratogenic effects. Other studies in mice and in rats indicate that dinoseb is teratogenic to mice after parenteral dosing, but teratogenicity was not observed after oral exposures.

Environmental Fate:

Dinoseb is only partially absorbed and translocated by plants following soil or foliar treatment. Surface residues are dissipated primarily by volatilization, with some photodegradation occurring. Residue data indicates that at 6 weeks after application, dinoseb residues are nondetectable (<0.1 ppm) in forage crops. Dinoseb is not subject to hydrolysis and is degraded in soil by microbial action or UV radiation. Approximately 66% of dinoseb is lost from silt loam fields after 6 months. Insufficient data exists to make a prediction on bioaccumulation potential.

Risk Assessment:

Scientific reviews of animal toxicity studies have concluded that the limited information available on dinoseb has shown no carcinogenic, mutagenic or teratogenic effects after oral administration in animals. Utilizing long-term animal studies, EPA has determined:

NOEL: 2.5 mg/kg body weight
Uncertainty factor: 2000
ADI: .0013 mg/kg/day

Recommendations and Conclusions:

Utilizing the above Federal Numbers (EPA), and the procedures outlined in ss. 160.07(4) and 160.13, the calculations for the Department of Health and Social Services recommended groundwater standard are as follows:

$$\frac{2.5 \text{ mg/kg/day} \times 10 \text{ kg} \times 100\%}{2000 \times 1 \text{ liter}}$$

= .013 mg/liter (13 µg/l)
= 13 parts per billion (ppb)

Recommended Enforcement Standard: .013 mg/liter

Recommended Preventive Action Limit factor: 20%

References:

1. Weed Science Society of America, 1983. Herbicide Handbook.
Champaign, IL. p. 187-191
General: FDA. Surveillance Index Document. Transmittal No. 6.
March 6, 1981

APPARENTLY THE CONSUMPTION IS 1 LITER OF WATER PER 10 KG. OF BODY WEIGHT. A SAFETY FACTOR OF 2000 IS USED.





VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

February 21, 1985

1985 FEB 25 AM 10:05

MISSISSIPPI DEPARTMENT OF POLLUTION CONTROL

DIVISION OF SOLID WASTE

REVIEWED BY SM

DATE _____

COMMENTS sent to

EPA # 11-16-87

Mr. Chuck Estes
Hazardous Waste Section
Mississippi DNR
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

Pursuant to our discussion on February 19, 1985 I have written this letter to attempt to articulate a question we have with regard to potential future uses of the surface impoundment at our Vicksburg facility.

Present Description and Status of Surface Impoundment:

1. The surface impoundment has existed for a period of approximately 30 years. Modifications were made to the dikes of the impoundment in 1983 to assure compliance with RCRA standards for structural integrity and overtopping during 100 year flood occurrences. The surface impoundment exists alongside an inactive disposal area which was capped in 1983. Additional cap erosion control measures were taken in 1984. A plan view of the surface impoundment, inactive disposal area, and surrounding wells and piezometers is attached. Groundwater data has been collected since 1981.

2. The purpose of the impoundment is to collect rainwater run off from the south plant and serve as a spill collection system in the south plant (spills will flow through the drainage system to the impoundment or will flow to a sump and be pumped to the impoundment). The exception to this flow pattern is the MSMA plant where rainwater and spills are contained within MSMA plant boundaries. No treated or untreated process wastewater is deliberately discharged from the south plant to the impoundment. The impoundment also serves as standby retention basin to receive water diverted from the north plant when that water does not meet pH guidelines for discharge to the Mississippi River. Water in the impoundment is pumped through columns of activated carbon prior to discharge to the Mississippi River.

3. The Bureau of Pollution Control has determined that the impoundment is a hazardous waste management unit.

4. Pursuant to the Bureau of Pollution Control's determination, Vertac has submitted a complete RCRA Part B application and has continually supplemented that application as monitoring data has been collected, as RCRA rules and regulations change and as new questions are asked by the Bureau of Pollution Control. The Part B application contains a closure plan for the surface impoundment.

Present Status of Groundwater Monitoring:

1. An appendix VIII hazardous constituent, dinitro butylphenol, has been found in trace concentration in monitoring well Number 1.

2. Monitoring well number 1 is upgradient of the surface impoundment but downgradient of mounded water underneath the inactive disposal area.

3. The Bureau of Pollution Control has determined that Vertac must analyze the eight RCRA monitoring wells for appendix VIII constituents plus Atrazine. At this time no one in the world is analyzing for appendix VIII constituents to the satisfaction of the EPA. The Bureau of Pollution Control has determined that a New Jersey laboratory, ETC, can make appendix VIII analyses to their satisfaction.

Closure Plan:

1. The closure plan that has been submitted and amplified by Vertac is a simple and conventional plan involving emptying the impoundment by discharging the liquid contents through activated carbon columns and into the Mississippi River, adding dirt to fill the impoundment and then capping the entire impoundment. Any reasonable competent dirt moving firm could execute the plan.

2. Vertac will continue to amplify that simple and complete closure plan as questions are made known. That closure plan will not change for purposes of RCRA Part B permitting, which permitting is necessary because the Bureau of Pollution Control has made a determination that the impoundment is a hazardous waste unit.

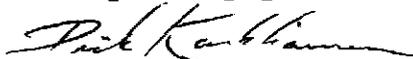
Possibilities for the Future:

1. Vertac does not reasonably anticipate retrofit of a double liner system underneath the surface impoundment as envisioned by November, 1984 RCRA ammendments. We believe the present use of the impoundment coupled with geologic, hydrogeologic, and monitoring information gathered since 1981 indicate to date that the impoundment is probably not a RCRA hazardous waste management unit and additionally does not adversely impact the environment; nevertheless, we have deferred to the judgement of the Bureau of Pollution Control that the impoundment is a hazardous waste unit and are proceeding on that basis.
2. We would at some time in the future, but prior to 1988, ammend our closure plan and replace it with a plan the intent of which is declassification of the impoundment, to the satisfaction of the Bureau of Pollution Control, from RCRA hazardous waste management status.
3. The closure plan would involve those steps which I have described in letters of October 17 and December 20, 1984. Specifically, sediment would be removed, to the satisfaction of the Bureau of Pollution Control, from the impoundment. Present analytical information indicate that the sediment is not a hazardous waste. Sewer drains within the plant would be revised such that no spills of product would flow to the surface impoundment. Each process area would be totally contained as is now the MSMA area. The impoundment would be used solely for retention of rainwater prior to treatment and discharge to the Mississippi River.

Question:

Are the regulatory agencies amenable to the closure plan described in "Possibilities For The Future": or must Vertac abandon this surface impoundment, which present data indicate is relatively impervious and has structural integrity, and close it by filling it in with dirt and capping it prior to 1988?

Very truly yours,



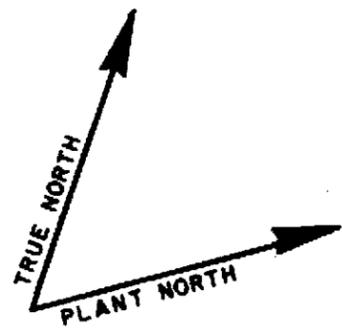
Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: J. McMillan
J. Herrmann
J. Hill

DRAWING 846545-B
NUMBER

DRAWN BY
DIS CHECKED BY
10/18/83 APPROVED BY



VERTAC CHEMICAL CORP
VICKSBURG PLANT

NORTH
PLANT

MW-4

HIGHWAY 61

PLANT ENTRANCE ROAD

RIFLE RANGE ROAD

LEGEND

- ⊕ PZ PIEZOMETER
- ⊕ MW MONITOR WELL

STOUTS BAYOU

INTERIM
STATUS
SURFACE
IMPOUNDMENT

INACTIVE
DISPOSAL
AREA

HENNESSEY'S BAYOU

HATCHER BAYOU

MW-2

MW-7

MW-8

MW-1

PZ1

PZ4

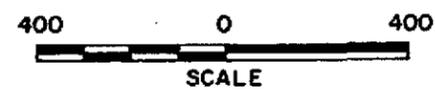
MW-6

MW-5

MW-3

PZ2

PZ1-B



Plan
View



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

February 21, 1985

Mr. Chuck Estes
Hazardous Waste Section
Mississippi DNR
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

Pursuant to our discussions on February 19, 1985 at your offices I have reviewed the groundwater monitoring data on concentrations of Dinitrobutyl Phenol, Toxaphene, and Atrazine.

On January 13, 1984 I reported that Dinitrobutyl Phenol, an appendix VIII constituent, had been detected in well number 1. No Toxaphene was detected in any wells. I further reported Atrazine to be present in wells 1,2,6,7, and 8. The Atrazine concentrations reported exceeded the solubility of Atrazine in water and were obviously in error. Since Environmental Laboratories, Inc. did not have a g.c. mass spec, they had subcontracted the Atrazine, Toxaphene, and dinitrobutyl phenol analyses to another laboratory. With this information, I discontinued use of Environmental Laboratories, Inc. and took new samples and submitted them to Enviro Med Laboratories, a lab I had been using elsewhere for difficult analyses.

On March 9, 1984 I submitted the results from Enviro Med Laboratories. Dinitrobutyl Phenol was not detected in any of the wells. Toxaphene was not detected in any of the wells. Atrazine was detected in trace concentrations in wells 1,2, 5,6, and 8. Atrazine is not a hazardous constituent.

The analytical results submitted on January 13, 1984 for Toxaphene, Atrazine, and dinitrobutyl phenol are in error. Since the results on January 13, 1984 are in error, Vertac has not reported the presence of a hazardous constituent in groundwater.

DIVISION OF SOLID WASTE

REVIEWED BY AM

DATE _____

COMMENTS sent to

EPA 11-16-85

On June 11, 1984 the Bureau of Pollution Control caused to be delivered a Commission Order with accompanying data from the Mississippi State Chemical Laboratory showing detention of trace amount of Dinitrobutyl Phenol in well Number 1 and Atrazine in well number 8. On this basis the Bureau of Pollution Control has made a determination that one hazardous constituent has been found in one monitoring well. Vertac has not data to challenge the Bureau's finding. Additionally, there is clearly a statistically significant increase in specific conductance in well number 1.

Very truly yours,



Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: J. McMillan
J. Herrmann
J. Hill



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

February 11, 1985

1985 FEB 16 AM 8:17
FROG
E. J. ...
...

Mr. Chuck Estes
Mr. Jerry Banks
Mr. Steve Spengler
Mississippi Department of Natural
Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Gentlemen:

SDS Biotech Corporation, a joint venture of Diamond Shamrock and Showa Denko, is actively considering the purchase of Vertac Chemical Corporation. Vertac's environmental compliance now, as well as in the past and that anticipated for the future, is being assessed by a team comprised of personnel from Diamond Shamrock, SDS Biotech, and Woodward-Clyde Consultants. On February 12, 1985 Mr. Gordon Stewart of Diamond Shamrock will visit the Bureau. Please allow him access to public and confidential files on our Vicksburg plant. Additionally, please discuss with him any present problems as well as positive aspects of Vertac's environmental compliance.

I would additionally ask that the possibility of the purchase be held confidential within the Bureau until negotiations are completed and information is released to the public by the respective companies.

Best regards,

Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: Mr. Bill Hutton - Diamond Shamrock
Mr. John Licata - SDS Biotech

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.
2. Restricted Delivery.

3. Article Addressed to:

Vertac Chemical Co
PO Box 3
Vicksburg, MS 39180

4. Type of Service:

- Registered Insured
 Certified COD
 Express Mail

Article Number

P175763-1

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature - Addressee

X

6. Signature - Agent

X

7. Date of Delivery

8. Addressee's Address (ONLY if requested and fee paid)

UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS



PENALTY FOR PRIVATE
USE, \$300

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

**RETURN
TO**



Jack McMillan

(Name of Sender)



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209
(601) 961-5171



M E M O R A N D U M

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

TO: Hazardous Waste Treatment, Storage and Disposal Facilities
FROM: Jack M. McMillan
DATE: February 7, 1985
SUBJECT: Effect of Hazardous and Solid Waste Amendments of 1984

The Hazardous and Solid Waste Amendments of 1984 (HSWA) were signed into law by President Reagan on November 8, 1984. These amendments will have several effects on the hazardous waste regulatory program, both immediate and long-term.

One of the earliest items to be addressed is a requirement that RCRA permits require corrective action to clean up contamination caused by prior releases of hazardous wastes or constituents from solid waste management units, regardless of when the waste was placed in the unit. This requirement applies to both hazardous and nonhazardous waste management units.

To help establish how this provision may apply to your facility, we ask that you complete the enclosed form and return it to our office within 15 days of your receipt of this letter. Also enclosed is a summary containing details of this and other provisions of the HWSA for your information. Please contact David Lee or John Herrmann of my staff, if you have any questions on this matter.

JMM:DEL:vgr
Enclosures
cc: Mr. James H. Scarbrough



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

RECEIVED
JAN 10 10 31 AM '85
January 10, 1985

REPLY TO: P. O. BOX 3
VICKSBURG, MS 39180
(601) 636-1231

Mr. Charles Estes, P.E.
Mississippi Department of Natural Resources
Bureau of Pollution Control
Division of Solid Waste Management
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

Per your letter of December 31, 1984, enclosed are copies of the written documentation of the annual training review for employees involved in hazardous waste management. Sheets 2 and 3 are common to the first 6 sheets and were not reproduced for each individual for this submittal.

Should you have any further questions, please feel free to give me a call.

Sincerely,

John G. Hill
Environmental Engineer

JGH/ld
Enc.

cc - (no enc.)
- F. Ahlers
- D. Madsen
- D. Karkkainen

TRAINING - HAZARDOUS WASTE OPERATORS

RECEIVED
1985 JAN 13 11 09 AM

This document must be retained in the employee's file as a permanent record to conform with existing EPA Hazardous Waste Regulations, Part B RECRA.

Name of Employee: JAMES VINSON

Job Title: Effluent Operator

Nature of Training Prior to 8/14/83. Prior service in the Vicksburg facility is considered to be "on the job training" to comply with existing requirements.

Nature of Training or Review on (Date) 2-14-84

PART B

Sec. 3(d) (1.) (2) (3)

H-1 INTRODUCTORY TRAINING

From 3 to 5 years' service in the Vicksburg facility as effluent operators is considered to be "on the job training" to comply with the requirements of H-1.

H-1a JOB TITLE AND DUTIES.

Title Effluent Operator

Duties

1. Inspection, operating, and reporting duties in the following hazardous waste areas:

- A. Containment pond.
- B. Activated carbon filters.
- C. Perform contingency plan duties in case of an emergency.

H-2b TRAINING CONTENT, FREQUENCIES AND TECHNIQUES

A. Waste Site, The Containment Pond.

- 1. Description of waste and associated hazards.
- 2. Location of pond.

TRAINING - HAZARDOUS WASTE OPERATORS

This document must be retained in the employee's file as a permanent record to conform with existing EPA Hazardous Waste Regulations, Part B RECRA.

Name of Employee: TOMMY CRUTCHFIELD

Job Title: Effluent Operator

Nature of Training Prior to 8/14/83. Prior service in the Vicksburg facility is considered to be "on the job training" to comply with existing requirements.

Nature of Training or Review on (Date) 2-14-84

PART B

Sec. 3(d) (1.) (2) (3)

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Title Effluent Operator

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- A. Containment pond.
- B. Activated carbon filters.
- C. Perform contingency plan duties in case of an emergency.

H-2b TRAINING CONTENT, FREQUENCIES AND TECHNIQUES

A. Waste Site, The Containment Pond.

1. Description of waste and associated hazards.
2. Location of pond.

TRAINING - HAZARDOUS WASTE OPERATORS

This document must be retained in the employee's file as a permanent record to conform with existing EPA Hazardous Waste Regulations, Part B RECRA.

Name of Employee: PHIL GRIFFIN

Job Title: Effluent Operator

Nature of Training Prior to 8/14/83. Prior service in the Vicksburg facility is considered to be "on the job training" to comply with existing requirements.

Nature of Training or Review on (Date) 2-14-84

PART B

Sec. 3(d) (1.) (2) (3)

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Title Effluent Operator

Duties

1. Inspection, operating, and reporting duties in the following hazardous waste areas:

- A. Containment pond.
- B. Activated carbon filters.
- C. Perform contingency plan duties in case of an emergency.

H-2b TRAINING CONTENT, FREQUENCIES AND TECHNIQUES

A. Waste Site, The Containment Pond.

1. Description of waste and associated hazards.
2. Location of pond.

TRAINING - HAZARDOUS WASTE OPERATORS

This document must be retained in the employee's file as a permanent record to conform with existing EPA Hazardous Waste Regulations, Part B RECRA.

Name of Employee: ABE FLOYD

Job Title: Effluent Operator

Nature of Training Prior to 8/14/83. Prior service in the Vicksburg facility is considered to be "on the job training" to comply with existing requirements.

Nature of Training or Review on (Date) 2-14-84

PART B

Sec. 3(d) (1.) (2) (3)

H-1 INTRODUCTORY TRAINING

From 3 to 5 years' service in the Vicksburg facility as effluent operators is considered to be "on the job training" to comply with the requirements of H-1.

H-1a JOB TITLE AND DUTIES.

Title Effluent Operator

Duties

1. Inspection, operating, and reporting duties in the following hazardous waste areas:

- A. Containment pond.
- B. Activated carbon filters.
- C. Perform contingency plan duties in case of an emergency.

H-2b TRAINING CONTENT, FREQUENCIES AND TECHNIQUES

A. Waste Site, The Containment Pond.

1. Description of waste and associated hazards.
2. Location of pond.

TRAINING - HAZARDOUS WASTE OPERATORS

This document must be retained in the employee's file as a permanent record to conform with existing EPA Hazardous Waste Regulations, Part B RECRA.

Name of Employee: DAVID KEEN (SUPERVISOR)

Job Title: Effluent Operator

Nature of Training Prior to 8/14/83. Prior service in the Vicksburg facility is considered to be "on the job training" to comply with existing requirements.

Nature of Training or Review on (Date) 2-14-84

PART B

Sec. 3(d) (1.) (2) (3)

H-1 INTRODUCTORY TRAINING

From 3 to 5 years' service in the Vicksburg facility as effluent operators is considered to be "on the job training" to comply with the requirements of H-1.

H-1a JOB TITLE AND DUTIES.

Title Effluent Operator

Duties

1. Inspection, operating, and reporting duties in the following hazardous waste areas:

- A. Containment pond.
- B. Activated carbon filters.
- C. Perform contingency plan duties in case of an emergency.

H-2b TRAINING CONTENT, FREQUENCIES AND TECHNIQUES

A. Waste Site, The Containment Pond.

1. Description of waste and associated hazards.
2. Location of pond.

TRAINING - HAZARDOUS WASTE OPERATORS

This document must be retained in the employee's file as a permanent record to conform with existing EPA Hazardous Waste Regulations, Part B RECRA.

Name of Employee: JOHN DONOVAN (SUPERVISOR)

Job Title: Effluent Operator

Nature of Training Prior to 8/14/83. Prior service in the Vicksburg facility is considered to be "on the job training" to comply with existing requirements.

Nature of Training or Review on (Date) 2-14-84

PART B

Sec. 3(d) (1.) (2) (3)

H-1 INTRODUCTORY TRAINING

From 3 to 5 years* service in the Vicksburg facility as effluent operators is considered to be "on the job training" to comply with the requirements of H-1.

H-1a JOB TITLE AND DUTIES.

Title Effluent Operator

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1. Inspection, operating, and reporting duties in the following hazardous waste areas:

- A. Containment pond.
- B. Activated carbon filters.
- C. Perform contingency plan duties in case of an emergency.

H-2b TRAINING CONTENT, FREQUENCIES AND TECHNIQUES

A. Waste Site, The Containment Pond.

1. Description of waste and associated hazards.
2. Location of pond.

3. Explanation of flow to and from the pond.
4. Location of process lines, pumps, valves to and from pond.
5. Proper and safe operation of valves and pumps to and from the pond.
6. Inlet water to the pond and sources of the same.
7. Hazards of inlet water.
8. Location and operation of samplers and integrators.
9. Pond level management.
10. pH control.

Inspection Program for the Containment Pond

Critical Inspection Items

1. ~~Dike inspection, conditions which might lead to leaks or rupture.~~
2. Grass mowing and upkeep.
3. Pond level.
4. Condition of warning signs.
5. Conditions which might lead to fire or explosion.

B. Waste Site Activated Carbon Columns

1. Description of waste and associated hazards.
2. Flows from pond to columns.
3. Flows from columns to discharge line.
4. Arrangement and operation of pipes, valves, and associated equipment.
5. Backwashing.
6. Draining.
7. Transfer of spent carbon.
8. Receipt of new carbon.
9. Inspection for leaks.
10. Inspection for malfunctions.
11. Conditions that might lead to fire or explosion.

C. Review of Emergency Response Contingency Plan includes H-1a (1) H-1e (6) where applicable.

1. Supervisor to whom to report.
2. General duties, an overall view of the plan.
3. Specific duties for prevention of leaks or rupture.
4. Specific duties in the event of a release.
5. Emergency equipment, care and use.
6. Specific duties in the event of a fire or explosion, communications, fire alarms.
7. Emergency shutdown operation.

In addition, the employee will participate in the following continuing training program:

1. Attend the Calgon Corporation's training session on the operation of the Calgon activated carbon system.
2. Attend personnel training programs developed for any new process.
3. Attend weekly safety meetings.
4. Attend review sessions.

SIGNED R. F. Marzulli 2-14-84
Person conducting the training or review.

SIGNED [Signature] 2-14-84
Employee's Supervisor



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-8851

TELEX 53927

January 9, 1985

REC'D JAN 11 AM 9:20
BUREAU OF POLLUTION CONTROL

Mr. Chuck Estes
Hazardous Waste Section
Mississippi DNR
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

Attached is a copy of a status report on Environmental Impairment Liability Insurance (non-sudden) received from our insurance broker. The essence of the report is that, for the present, the non-sudden insurance market does not exist and as of 12/27/84 our non-sudden policy has not been renewed.

I believe the U.S. EPA is not unaware of the problems within the insurance industry. I refer you specifically to the comments of Mr. John Skinner during the televised EPA conference on reauthorized RCRA noting that the EPA would have to sit down with representatives of the insurance industry.

We are continuing to seek another non-sudden policy. In the meantime after you have informed the appropriate personnel within the Bureau of Pollution Control and perhaps obtained confirmation from the EPA of the confusion within the insurance market, I would like to sit down with you and review the alternatives open to us.

Best regards,

Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: J. C. Bumpers

DIVISION OF SOLID WASTE

REVIEWED BY JM

DATE _____

COMMENTS sent to EVA

11-16-85



E.H. CRUMP & CO.

One of The Crump Companies

January 8, 1985

Thomas Thompson
Vice President

Mr. John Bumpers
Vertac Chemical Corporation
5100 Poplar Avenue
Suite 2414
Memphis, Tennessee 38139

Re: Environmental Impairment Liability
Policy No. 560-000-300
Expiration Date: December 27, 1984

Dear John:

This letter can suffice as my formal notice in advising you that we are unable to place the environmental impairment liability coverage with an insurance carrier, therefore, the 12/27/84 expiration notice must stand.

In notifying you of our inability to successfully market this risk I must do so with a considerable degree of disappointment and frustration. It is also incumbent on me to dutifully explain the steps we took and the markets that were approached in this effort.

John, beginning with a telex to us (Exhibit #1) and the letter received by you (Exhibit #2) we were both notified that the existing coverage would not be renewed 12/27/84. At that time, we began an immediate market search with a complete underwriting document and engineering report. I can honestly state that we contacted every known market that would possibly offer terms- also, we had an experienced E. H. Crump broker, Mr. Gene Horner, personally visit with London to secure coverage and also was unsuccessful. (Exhibit #3)

Please note a copy of an article from the "Business Insurance" magazine dated 11/12/84 which pretty much describes the problems and the current markets. (Exhibit #4) In contacting each and every market described in that article, I was told by all the environmental impairment liability underwriters that this type account, in other words, accounts

5350 Poplar Avenue
P.O. Box 171377
Memphis, TN 38187-1377
(901) 761-1550

Page 2

Vertac Chemical Corporation
Memphis, Tennessee

Mr. John Bumpers
January 8, 1985

that had more than an incidental environmental exposure, there were only two markets that would truly entertain these risk. Both of those markets declined- Shand, Morahan & Company and American Home Assurance Company (see Exhibits 5 & 6)

In addition, you can see from (Exhibit #7) that a status report dated 11/26/84 revealed that we were attempting to explore all avenues and meeting with much resistance.

In summary, I can only suggest that the current insurance market is not without change- it is constantly moving, shifting and changing in direction. Most insurance companies are in the process of coming out of some very rough financial periods and are in the process of re-negotiating their re-insurance contracts. (Which most expire January 1st) I feel confident that in 60-90 days a new effort would yield some positive results and I ask you to bear with me and have patience with this very unpredictable industry.

Sincerely,


Thomas R. Thompson
Vice President

TRT/jp
encls

... E: 21

1300 EDT+

LOVELESS ATL

882171 HOWDEN G

STF VDR072 09141706 TLX435 09141706 RCD30

DUR REF NAM/2/PSV
ATTENTION JIM RICKEN
RE VERTAC CHEMICAL

UWRS HAVE REVIEWED CERTIFICATE AND HAVE PROBLEM WITH CERTIFICATE AS
ISSUED BY EH CRUMP IN SO FAR AS CRUMP HAS ISSUED WITH LIMIT
5/10 MILLION EXCL COSTS AND LIMIT AFFORDED BY UWRS IS 5/10 INCL COSTS
STOP UWRS PROPOSE TO PROCEED AS FOLLOWS

- 1) YOU SHOULD CANCEL CERTIFICATE WITH IMMEDIATE EFFECT
- 2) UWRS WILL ISSUE CORRECT CERT FOR STATUTORY LIMITS 3/6M EXCL
DEFENCE COSTS
- 3) PLEASE NOTE UWRS WILL NOT BE IN A POSITION TO RENEW THIS POLICY
DUE TO LONDON FACILITY NO LONGER IN PLACE STOP PLEASE ACCEPT THIS
AS FORMAL NOTICE OF CANCELLATION TO BE EFFECT 27TH DECEMBER 1984

STOP
REGARDS PAUL VOLLER

SENT 14 SEPT 84MAC

882171 HOWDEN G

LOVELESS ATL

 The London Agency, Inc.

1230 W. Peachtree St., N. W.
P. O. Box 4985
Atlanta, Georgia 30302
(404) 875-9641
Telex 54-2445
TWX 810 751-3329

September 28, 1984

Mike Rogers
Vice President

Vertac Chemical Corporation
24th Floor
5100 Poplar
Memphis, TN 38137

Gentlemen:

Environmental Impairment Liability
560-000-300
Expiration Date: December 27, 1984

The captioned policy will expire on the date indicated. We will be unable to guarantee renewal coverage for you, due to substantial changes in the reinsurance markets. We suggest that you forward up-to-date renewal information to your broker as soon as possible in order for him to have sufficient time to request coverage from other markets writing environmental impairment liability.

We do hope we will be in a position to issue renewal terms to your broker, but in the event that we are unable to do so, we wanted to give both you and your broker as much time as possible to pursue all other markets available.

We value our relationship with your company, and hope that we can continue to provide service to you.

Sincerely,


Mike Rogers

bm



**CRUMP LONDON
UNDERWRITERS**

5350 Poplar Avenue • P.O. Box 171336 • Memphis, Tennessee 38187-1336 • Telephone 901 / 761-1770

CABLE: Crumpmilo/ITT 4621014

December 28, 1984

Mr. Thomas R. Thompson
E. H. Crump & Company
5350 Poplar Ave.
Memphis, Tennessee 38119

RE: Vertac Chemical Corporation
Environmental Impairment Liability

Dear Tom:

This memorandum will serve to confirm and supplement our recent telephone conversation in which I advised you of my unsuccessful efforts in placing environmental impairment liability for Vertac Chemical Corporation. Specifically, during my recent visit to London, I attempted to specifically market this account. Unfortunately, I learned there is no market in London for this coverage.

I understand you utilize the existing broker to market the coverage domestically but this too proved to be unsuccessful.

In conclusion, Tom, sufficed to say, we have been unsuccessful in securing a market to provide environmental impairment liability for Vertac.

Yours very truly,

Era E. Horner, Jr.,
Executive Vice President

EEHj/ljg

Lack of reinsurance cuts EIL

Continued from page 1
claims from CGL policies, which is expected to force buyers to seek EIL coverage for exposures previously covered by CGL policies (see story below).

The new federal hazardous waste law, which was expected to be signed by President Reagan last week, could also mandate new coverage for as many as 1 million underground tanks, explains Jim Kimble, senior counsel with the American Insurance Assn. in Washington.

In addition, other new EIL insurance buyers are now looking for coverage to meet a Jan. 15 deadline imposed by the U.S. Environmental Protection Agency. On that date, firms with hazardous waste disposal operations that generate less than \$5 million in annual sales will have to have pollution insurance or otherwise prove financial responsibility.

The latest company to pull out of the EIL market, Dryden & Co., is managing general agent for Gibraltar Casualty Co., a surplus lines affiliate of Prudential Reinsurance Co. Gibraltar indefinitely suspended writing new business in September, citing poor operating results (BI, Sept. 17).

A spokesman for Dryden says the EIL market lacks "an adequate premium base," and he says the company may not offer EIL coverage when it begins writing new casualty business again.

Earlier this year, Hartford Steam Boiler Inspection & Insurance Co. and Environmental Risk Assessment Services (International) Ltd., a London-based pool of 15 insurers, stopped writing pollution liability coverage because they could not find adequate reinsurance.

Also, two potential markets, one contemplated by J.H. Blades & Co. of Houston and the other by California Union Insurance Co., withdrew on the vine earlier this year for the same reason—no reinsurance available (BI, July 9).

While Dryden has bowed out of

Co. Ltd., a subsidiary of The St. Paul Cos. Inc., has reduced its EIL policy limits from \$15 million per occurrence/\$15 million aggregate to \$8 million/\$6 million.

In addition, The Home Insurance Co. reduced its limits from \$10 million per occurrence/\$20 million aggregate to \$5 million/\$10 million.

And, while Travelers Indemnity Co. officially still has limits of \$10 million/\$10 million, Edwin J. Rinehimer, associate director of commercial lines, says Travelers is generally not writing the full amount of those limits.

The continued tightening of the reinsurance market is largely responsible for these reduced policy limits, EIL underwriters say.

"The reinsurance market has diminished appreciably," says Mr. Rinehimer. As a result, it is "not easy to get the policy limits" for an EIL risk, he adds.

Tim Lehman, an underwriter for Stewart Smith Inc. in Chicago, puts it more bluntly. "Nobody wants to talk about EIL," he says, referring to the reinsurance market.

Mr. Lehman says Stewart Smith, which writes EIL insurance for Great American Surplus Lines Insurance Co., has EIL reinsurance lined up through the middle of next year. "After that, who knows?"

In addition, reinsurance was one of the reasons behind Swett & Crawford's lower limits, says Kathryn I. Scott, EIL underwriting manager for Atwater McMillian Inc. in St. Paul, Minn., a St. Paul Cos. Inc. unit that now manages the Swett & Crawford program.

In addition, she says, the program is now insured through St. Paul Surplus Lines Insurance Co. The Swett & Crawford program had been underwritten by Harbor Insurance Co. and Pacific Insurance Co., underwriting units of Continental Corp. The change was the result of St. Paul's purchase of Swett & Crawford last year (BI, July 18, 1983).

A spokesman for The Home says

The reinsurance market has diminished appreciably, says Travelers' Mr. Rinehimer, noting that as a result it is not easy to get the policy limits for an environmental impairment liability risk.

panies with "light to moderate" pollution exposures. Because of this policy, the spokesman explains, The Home did not need the \$15 million/\$20 million limits.

The Home is currently negotiating with its reinsurers, the spokesman says, noting that limits or policy conditions that will be available next year are not yet known.

Companies that have not reduced their limits since the last Business Insurance survey in July include Stewart Smith; American Home Assurance Co., an affiliate of American International Group Inc.; Shand, Morahan & Co., underwriting manager for Evanston Insurance Co.; and Hartford Insurance Group.

The eighth EIL market, the Pollution Liability Insurance Assn., a pool of 49 companies offering coverage on the Insurance Services Offices form, was able to increase its limits slightly, from \$8 million per occurrence/\$8 million aggregate to \$6 million/\$10 million.

The increase was the result of increased interest in the PLIA program by some of the association's member companies, explains Art Baden, senior underwriter for PLIA in Chicago.

But, Mr. Baden notes that PLIA's limits may be reduced in January because several PLIA members are pulling out of the pool, largely because they haven't seen enough premium volume to justify their participation in the facility.

However, he adds that several companies may join the pool in December, replacing those that plan to pull out and says PLIA will be a viable EIL market through 1985.

risks for Fortune 500-size companies. While both can offer limits up to \$20 million/\$20 million, both say they have a backlog of requests and it can take as much as 60 days for them to provide a quote.

In addition, excess EIL coverage is practically non-existent. Only Swett & Crawford is currently offering excess coverage, with limits of only \$8 million. And, brokers say Swett & Crawford is very choosy about whom it will offer excess coverage to.

Thus, the maximum primary and excess coverage available in the EIL market is \$26 million.

Swett & Crawford, The Home, PLIA and Stewart Smith say they primarily serve small to mid-sized companies with light to moderate pollution risks.

At one time, Stewart Smith was writing coverage for large companies with significant pollution risks, but earlier this year the company began shifting its book of business to smaller companies with moderate pollution exposures, brokers say.

As a result, larger companies that had policies with Stewart Smith must now seek coverage from the other EIL markets, principally AIG and Shand.

Mr. Lehman says Stewart Smith's reinsurers "don't want the Fortune 500-type risks. They set up the program for smaller risks."

The other two markets, Hartford and Travelers, will only write EIL coverage for clients that purchase other types of coverage from them.

"We are not a specialty market," explains Travelers' Mr. Rinehimer.

Ex #4

American Home Assurance Company

70 Pine Street, New York, N.Y. 10270
212/770-7000
Cable: AHGROUP

NOV 5 1977

NOV 5 RECD



A Member Company of
American International Group

Direct Dial: 212/770- 7186

October 31, 1984

Mr. Jim Aiken
Loveless & Company, Inc.
7201 Perimeter Center, N.E.
Atlanta, GA 30346

Re: Vertac Chemical Corp.
Pollution Liability Coverage

Dear Jim:

After a careful review of the submitted material, I find I must decline offering premium indications for pollution liability coverage for the above-captioned account.

The main reason for the declination is the past problems associated with all three locations and the resulting high potential for claims. Incidentally, we had previously declined coverage back in December, 1982 for this account.

If you have any questions, please call.

Sincerely yours,

Mark Vuono
Manager
Pollution Legal Liability

MV:sf

cc: John J. Amore

NOV 7 REC'D



November 5, 1984

LOVELACE & COMPANY, INC.
7201 Perimeter Center East, N.E.
Atlanta, GA 30346
Attn: Mr. Jim Aiken

RE: VERTAC CHEMICAL CORP.
Environmental Impairment Liability

Dear Jim:

Thanks for submitting this risk to us. We are not offering a quotation because of information we have gathered on this risk regarding widespread dioxin contamination and the resultant potential for serious loss(es).

Please let us know if there are questions. We appreciate your interest in our programs.

Sincerely,

A handwritten signature in cursive script that reads "Dale S. Litchfield". The signature is written in dark ink and is positioned above the typed name.

Dale S. Litchfield
Special Risks Department
DSL/mjg

2834

RX-GTW 0730 CST 11/26/84

NOV 26 1984 0830
CRUMPMILE MFS

LOVELESS ATL
NOVEMBER 26, 1984

ATTN: TOM THOMPSON

RE: VERTAC
EIL RENEWAL

MARKETING STATUS AS FOLLOWS:

- 1) SHAND MORAHAN (EVANSTON) - DECLINED
- 2) AIG - DECLINED
- 3) LONDON - WORKING, CHANCES NOT GOOD -
- 4) GIBRALTAR - WITHDRAWN FROM MARKET
- 5) GREAT AMER SURPLUS + + + + NO
- 6) POLLUTION LIAB INS ASSN - WILL CONSIDER AS REINSURANCE OF ONE
OF 49 POOL COMPANIES. CA N NOT BE REACHED DIRECT - NO
- 7) TRAVELERS - YOU TO CONTACT - NO
- 8) HOME ++ + + -NO
- 9) HARTFORD ++ + + -NO

ALSO TRYING ST. PAUL SURPLUS & L.W. BIEGLER.
SITUATION LOOKS BAD . WILL ADVISE FURTHER SOONEST.
REGARDS
JIM AIKEN

CRUMPMILE MFS

LOVELESS ATL

REPLY VIA ITT

THEY DISC.

Elapsed time 00:02:16

PRINTED AT 0732 CST 11/26/84

MOORE CLEAN PRINT PATENTED NO

December 31, 1984

Mr. John Hill
Vertac Corporation
P. O. Box 3
Vicksburg, Mississippi 39180

FILE COPY

Dear Mr. Hill:

Re: MSD990714081
Vicksburg Facility Inspection

On December 14, 1984, I visited the Vicksburg facility. The freeboard for the impoundment was well in excess of the 2' minimum required and the inspections for the impoundment were in order. The recent work on grassing the inactive landfill to prevent erosion appeared to be helping. An area that needs further attention is the required annual training review. All employees involved in hazardous waste management must receive an annual review of contingency and emergency prevention plans and operating requirements. This must be documented in writing for the employees receiving the review.

By January 30, 1985, a copy of the written documentation of the annual review must be received by our office. Should you have any questions, please contact us.

Sincerely,



Charles Estes, P. E.
Division of Solid Waste Management

CE:cm



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

December 20, 1984

Mr. Chuck Estes
Hazardous Waste Section
Mississippi DNR
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

As we have discussed we need to have a meeting to review:

1. declassification of the Vicksburg surface impoundment,
2. program to be followed if the pond is declassified,
3. program to be followed if the pond is not declassified.

I believe that declassification is easy to accomplish. All we have to do is revise process sewer drains and provide adequate concrete spill containment around our DNBP process, formulating and packaging areas such that DNBP spills and water used to clean up the spills will be contained locally and not drain to the surface impoundment. There is no reason to believe that the sediments within the pond are RCRA hazardous. Nor for that matter is there direct evidence that there were spills of DNBP into the pond via the drainage system, the impoundment was declared RCRA hazardous because of the potential. The impoundment does of course contain DNBP from process wastes but that is not RCRA hazardous.

The reasons for declassification involve the new RCRA amendments. The retrofitting requirement for a double-liner with an internal leachate collection system is not cost effective for an impoundment, the main function of which is spill and rainwater control. Additionally the EPA has caused such confusion with the insurance industry that it is likely that environmentally related insurance will not longer continue to exist. Fortunately for Vertac we will be able to pass the RCRA financial tests and will be able to make appropriate certifications. To this end if we could obtain forms with

RECEIVED
1984 DEC 27 11 08 AM
MISSISSIPPI DNR
BUREAU OF POLLUTION CONTROL

appropriate Mississippi language now it will help avoid future confusion. We will additionally continue to attempt to retain environmentally related insurance but for reasons completely unrelated to RCRA.

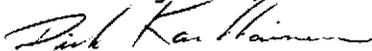
If the impoundment is declassified I believe we need to:

1. Complete the description of existing hydrogeologic conditions. In fact I hope we will have a report from IT Corporation available for our meeting.
2. Forget the appendix VIII nonsense.
3. Install a pump in well number 1 and pump it to the surface impoundment.
4. Forget the closure plan, etcetera.

If the impoundment is not declassified or we need time and a program prior to declassification I believe we need to:

1. Complete the description of existing hydrogeologic conditions.
2. Execute HAP analyses of monitoring wells when laboratories are able to assimilate the methodology.
3. Review the closure plan.

Best regards,



Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: J. Hill

November 26, 1984

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor, 5100 Poplar
Memphis, Tennessee 38137

SOLID WASTE READING FILE

Dear Mr. Karkkainen:

Re: Groundwater Assessment For Part B
Submittal MSD990714081

We have received the groundwater assessment information. Results from the assessment must be reported to our office by March 4, 1985. We will forward our requirements for an Appendix VIII scan as soon as our policy has been set.

Should you have any questions, please contact our office.

Sincerely,

Charles Estes, P. E.
Division of Solid Waste Management

CE:cm



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

November 20, 1984

Trust Officer
First National Bank
of Vicksburg
1301 Washington Street
Vicksburg, Mississippi 39180

Dear Sir:

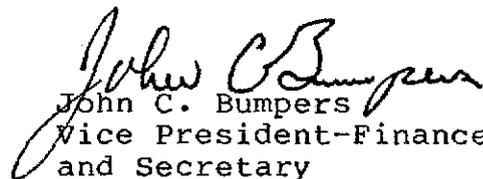
Re: Closure/Post Closure Trusts
Vertac Chemical Corporation, Grantor

Enclosed is our check in the amount of \$10,710 representing payment due for our Vicksburg Plant under the Closure/Post Closure Trust Agreement.

For the sake of clarifying the provisions of the Vicksburg plant trust agreement, I am enclosing a "Revised Exhibit and Schedule A" which should be attached to the trust agreement in lieu of the previous Exhibit A. As you can see, this document not only states the revised annual installment which Vertac is expected to pay into the trust fund annually, but also identifies Vertac's designee for purposes of section 14 of the trust agreement.

Please contact me if you have any questions.

Sincerely yours,


John C. Bumpers
Vice President-Finance/Admin.
and Secretary

JCB:ap

Enclosures

cc: 

RECEIVED
NOV 23 1984
U.S. DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
MEMPHIS, TENNESSEE

REVISED EXHIBIT AND SCHEDULE A

Facilities Cost Estimates/Annual Installments

Vertac Chemical Corporation
Vicksburg Plant
P. O. Box 3
Vicksburg, Mississippi 39180

EPA ID# MSD 990714081

Closure	\$ 30,000.00
Post-Closure	\$ 75,000.00
Revised Closure	\$160,600.00
Revised Post Closure	\$ 53,600.00
Revised Annual Installments effective 10/84	\$ 10,710.00

Vertac Chemical Corporation's Designated Representative
Pursuant to Section 14:

John C. Bumpers
Vice President and Chief Financial Officer



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

November 14, 1984

Mr. Chuck Estes
Hazardous Waste Section
Mississippi DNR
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

Attached is a copy of the Vicksburg Groundwater Assessment received today from Alan Gradet and a copy of my letter on Appendix VIII Constituents.

It is our plan to install the piezometers and stream gauges located in Figure "E" during the week of November 26, 1984. We would additionally initiate the level measurements during the same week and take samples for analysis. Analytical parameters would be those specified in my November 1, 1984 letter plus pH, conductance, TOC, TOH, TDS, chlorides, sodium, sulfate, potassium and nitrate.

This is a few days behind the schedule you required in your letter of October 3, 1984.

Best regards,

Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: A. Gradet
J. Hill



IT CORPORATION

November 12, 1984

Rec'd
11/13/84
Dick

Mr. R. D. Karkkainen
Director-Environment & Safety
Vertac Chemical Corporation
5100 Poplar, 24th Floor
Memphis, TN 38137

Project No. 846545

VICKSBURG GROUNDWATER ASSESSMENT

Dear Dick:

In accordance with your letter of October 5, 1984, we have completed several of the required work tasks as outlined in the Groundwater Assessment Plan. More specifically we have completed the following items:

1. Stratigraphic Cross-Sections (Figures B,C, and D). We have prepared three cross-sections using the existing boring data. The soil boring logs prepared by both previous contractors were used for this task. It should be noted that the change from silty clay to clayey silt is subtle and more detailed information from the new piezometers will better define this interface. The stratigraphic sections attached to this letter also show the well screening interval and the water levels recorded on March 4, 1983. Please note that wells #1-#4 were installed by one contractor while wells #5-#8 were installed by another contractor.
2. Existing Hydrogeologic Data. The compilation of water level measurements (made on March 4, 1983) is included on the attached stratigraphic logs. These data and their presentation also suggest that MW-1 is an upgradient well relative to the impoundment and the inactive disposal area. You might note that there is a significant distance between MW-1 and MW-5 (section B-B). If there is a gradient change in the vicinity of the Interim Status Impoundment, the additional piezometers proposed for that area should detect an elevated in water level.

We have also reviewed the data contained in the contractors' reports concerning soil permeability. We feel that their calculations are appropriate given the

Regional Office

IT Corporation • 2925 Briarpark • Suite 400 • Houston, Texas 77042 • 713-784-5070



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

November 8, 1984 8 AM 9:25
REPLY TO: P. O. BOX 3
VICKSBURG, MS 39180
(601) 636-1231

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

Mr. Chuck Estes
Mississippi Department of Natural Resources
Bureau of Pollution Control
Hazardous Waste Division
P.O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

Vertac intends to begin a short (\approx 60-day) campaign manufacturing 2 ethylhexyl nitrate (EHN), beginning the first of December, 1984.

The manufacturing process will generate two separate liquid waste streams both of which are considered hazardous by the characteristic of corrosivity. This 800 tons of corrosive waste represents less than 5% of the corrosive liquids currently listed in our Part B Application and therefore an actual permit amendment or modification is not proposed.

If you have any questions concerning this matter, please feel free to give me a call.

Sincerely,

John G. Hill
Environmental Engineer

JGH/ld
cc - F. Ahlers
R. Karkkainen



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

November 1, 1984

RECEIVED
1984 NOV -5 AM 9:50
MEMPHIS, TN 38137

Mr. Alan Gradet
Project Manager
IT Corporation
2925 Briarpark
Suite 405
Houston, TX 77042

RE: Appendix VIII Hazardous Constituents - Vicksburg

Dear Alan:

I have made an extensive and exhaustive investigation of Appendix VIII constituents and conclude that only the following are products, raw materials or known degradation by-products of past or present operations:

Category:

Production Operation Source:

Metals

Arsenic and compounds, N.O.S.
Arsenic Trioxide

MSMA (1)
MSMA (2)

Cyanides

Cyanides
Cyanogen Chloride

Atrazine (4)
Atrazine (4)

Volatile Halogenated Organics

Tetrachloromethane

Toxaphene (2)

Semi-volatile Halogenated Organics

Toxaphene

Toxaphene (1)

Category:

Production Operation Source:

UV Active, Polar, Semi-volatile Organics

Cresols
4,6-Dinitro-o-cresol and salts
Methyl parathion

DNOC (2)
DNOC (1)
parathion (1)

Nitrogen or Phosphorus Containing Polar,
Semi-volatile Organics

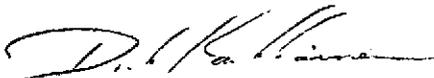
2-sec-Butyl-2,4-dinitrophenol
4,6-Dinitro-o-cresol and salts
Methyl parathion

DNBP (1)
DNOC (1)
parathion (1)

Notes:

- (1) product
- (2) raw material
- (3) possible degradation of product
- (4) possible degradation of raw material

Best regards,



Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc:


J. Hill



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

October 17, 1984

Mr. Chuck Estes
Hazardous Waste Section
Mississippi DNR
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

RECEIVED
1984 OCT 19 AM 9:40
MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

Dear Mr. Estes:

This note is written to bring up ideas for discussion and does not imply or obligate a particular direction of activity and does not request a Bureau of Pollution Control decision but does request guidance.

It may at some time be advantageous to remove our surface impoundment from RCRA status. In order to do this I think we would have to:

1. Revise process sewer drains around our DNBP process, formulating and packaging areas such that DNBP spills and water used to clean up the spills will be contained locally and not drain to the surface impoundment, thereby, eliminating Subpart D paragraph 261.33(e) hazardous waste P020. The surface impoundment would continue to contain DNBP but the DNBP would be from regulatorily non-hazardous sources:
 - a. Paragraph 261.33(d) "...Comment... It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraphs (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraphs (e) or (f), such waste will be listed in either paragraphs 261.31 or 261.32 or will be identified as a hazardous waste by the characteristics set forth in Subpart C of this Part."
 - b. Paragraph 261.3 (a)(iv) "...the following mixtures of solid wastes and hazardous wastes listed in Subpart D are not hazardous wastes ... if the generator can demonstrate that the mixture consists of wastewater the discharge of

October 17, 1984

Page 2

which is subject to ... Section 402 ... of the Clean Water Act ... and ... (D) a discarded commercial chemical product, or chemical intermediate listed in paragraph 261.33, arising from de minimis losses..."

2. Remove some of the sludge, soil or sediment from the sides and bottom of the surface impoundment such that the remaining soil is sufficiently free of toxaphene that the soil will not be characterized as Subpart C paragraph 261.24 EP Toxic Hazardous Waste D015. The sediment was sampled by the Bureau of Pollution Control during the breach of the impoundment levee in February, 1983. Subsequent analysis (attached) detected 280 and 360 ppm toxaphene in the sample; however, the EP Extract did not contain greater than or equal to 0.5 ppm toxaphene.

If we did the above could we remove the surface impoundment from RCRA status?

Best regards,



Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: A. Gradet
J. Hill

October 4, 1984

Mr. John Hill, Environmental Engineer
Vertac Chemical Corporation
P. O. Box 3
Vicksburg, Mississippi 39180

Dear Mr. Hill:

Re: NPDES Permit No. MS0027995
Vertac Chemical Corporation

Enclosed find a copy of an NPDES compliance inspection report which was completed as a result of our inspection at Vertac on September 20, 1984. This report should be used by Vertac to help comply with the above referenced permit.

While walking around the facility several problems were observed. The curbing around the C-10 scrubber had a break with a small amount of wastewater leaving this area. As I understand this wastewater would eventually end up in the stormwater drainage system. Secondly, a leak was observed in the dike around the DEHPA facility with some material pooled outside the dike. These problems should be corrected immediately if they have not already been corrected. A follow-up inspection by our office will be made in the near future to ensure that those problems have been corrected.

Another area of concern to our office was the erosion which was taking place on the dike of the surface impoundment. It is disturbing that it has been one year since the work has been completed on the dike and yet there is little vegetative growth on the dike. We have discussed this matter with Mr. Chuck Estes of our Hazardous Waste Section, and expect that action regarding the surface impoundment and the landfill site will be forthcoming possibly in the form of a Commission Order.

Lastly, a review of our file indicates that Vertac has yet to respond to our letter of August 1, 1984 concerning the effluent pipeline. We request that a response be submitted within 10 days of receipt of this letter.

If you have any questions do not hesitate to contact me at 961-5171.

Sincerely,

Wm. Stephen Spengler, P. E.
Industrial Wastewater Control Section

WSS:cm

Enclosure

cc: Mr. Pete McGarry, EPA (w/enclosures)
Mr. Fred Ahlers, Plant Manager, Vertac Chemical Corporation
Mr. Dick Karkkainen
Mr. Chuck Estes, BPC

BUREAU OF POLLUTION CONTROL
SAMPLE REQUEST FORM

Lab Bench No. 112

I. GENERAL INFORMATION: Facility Name Vertac Chemical Co.
 County Code Warren NPDES Permit No. _____
 Discharge No. _____ Date Requested _____
 Sample Point Identification Impoundment
 Requested By Chuck Estes Data To Chuck Estes
 Type of Sample: Grab () Composite (Flow) (Time) Other ()

II. SAMPLE IDENTIFICATION:
 Environment Condition sunny and cool Collected By Chuck Estes
 Where Taken east side of impoundment near breach area

Type	Parameters	Preservative	Date	Time
1. Sludge	Toxaphene, Atrazine, Cyanazine	cool	2/7/83	3:00
2. Sludge	DIBP	5ml H2SO4	"	3:15
3.	(Run totals and Ep			
4.	extract for these			
5.	parameters)			

III. FIELD:

Analysis	Computer Code	Request	Results	Analyst	Date
ph	(000400)	()			
D.O.	(000300)	()			
Temperature	(000010)	()			
Residual Chlorine	(050060)	()			
Flow	(074060)	()			

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other (x) field truck

V. LABORATORY: Received By DeJorretto King Date 2/9/83 Time 0915
 Recorded By Dorothy Lewis Date Sent to State Office 4-14-83

Analysis	Code	Request	Result	Analyst	Date Measured
BOD ₅	(000310)	()	mg/l		*
COD	(000340)	()	mg/l		
TOC	(000680)	()	mg/l		
Suspended Solids	(099000)	()	mg/l		
TKN	(000625)	()	mg/l		
Ammonia-N	(000610)	()	mg/l		
Fecal Coliform(1)	(074055)	()	colonies/100 ml		*
Fecal Coliform(2)	(074055)	()	colonies/100 ml		*
Total Phosphorus	(000665)	()	mg/l		
Oil and Grease(1)	(000550)	()	mg/l		
Oil and Grease(2)	(000550)	()	mg/l		
Chlorides	(099016)	()	mg/l		
Phenol	(032730)	()	mg/l		
Total Chromium	(001034)	()	mg/l		
Hex. Chromium	(001032)	()	mg/l		
Zinc	(001092)	()	mg/l		
Copper	(001042)	()	mg/l		
Lead	(017501)	()	mg/l		
Cyanide	(000722)	()	mg/l		
Atrazine (EPT)		(x)	12550 ug/l	MB	3-15-83
Cyanazine (EPT)		(x)	650 ug/l	MB	3-15-83
Toxaphene (EPT)		(x)	< 20 ug/l	MB	3-15-83
DIBP (EPT)		(x)			
Atrazine (Total)		(x)	7,030 mg/kg	MB	4-11-83
Cyanazine (Total)		(x)	< 112 mg/kg	MB	4-11-83
Toxaphene (Total)		(x)	280 mg/kg	MB	4-11-83
DIBP (Total)		(x)			

Remarks DIBP results will follow

*Date of Test Initiation

October 3, 1984

FILE COPY

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor, 5100 Poplar
Memphis, Tennessee 38127

Dear Mr. Karkkainen:

Re: Groundwater Assessment Plan
for Vicksburg Facility MSD

We have reviewed the proposed groundwater assessment plan and consulted a hydrologist at EPA Region IV.

We concur with the general direction of the assessment program. The water level monitoring program must also include Stout's Bayou as well as Hennessey's Bayou. The hydrologic study must identify the impact of the groundwater at the site on the streams. Also the study must identify and describe the groundwater which may be passing under the streams and moving off-site. Therefore, monitoring Well #3 should be used for water level measurements. Consideration should be given to the installation of piezometers on the south side of Hennessey's Bayou to identify groundwater which may pass under the stream. Additional water level piezometers appear necessary around the impoundment to give a better understanding of the impact of the impoundment on the groundwater system.

These piezometers should be installed as soon as possible. Waiting for results from monitoring well levels before installation does not appear to be necessary.

Under B.3 of the assessment plan it is stated that Appendix VIII hazardous constituents which have not been detected in the groundwater will not be analyzed for. The only constituents which may be eliminated from analysis are those which are not raw materials, products or known degradation by-products, have no acceptable analytical procedures or do not exist in water. Past analysis of groundwater cannot be used to drop a constituent from consideration.

In addition to analyzing for hazardous constituents in Wells #4, #1, #5, and #6, monitoring Well #3 should be sampled and analyzed. Quarterly sampling under the assessment mode is not necessary. The time to conduct the first sampling should be reduced to 30 days with subsequent samplings 60 days apart instead of 90 days. Since subsequent samplings will be conducted to verify the initial sampling, only one or two samples after the initial sampling should be required.

Mr. Dick Harkkainen
Vartac Chemical Corporation
October 3, 1984
Page -2-

FILE COPY

We approve the assessment plan with the above modifications. Should you have any further questions, please contact our office.

Sincerely,

Charles Estes, P. E.
Division of Solid Waste Management

CE:cm
cc: Mr. John Hill



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

September 27, 1984

1984 OCT - 2 11 40
RECEIVED

P. O. BOX 3

VICKSBURG, MS 39180

(601) 636-1231

MISSISSIPPI COMMISSION
OF NATURAL RESOURCES
BUREAU OF POLLUTION
CONTROL

Mr. Charles Estes, P.E.
Hazardous Waste Section
Mississippi Department of
Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Estes:

Re: Mississippi Commission of
Natural Resources -
Order No. 71784

Attached are three copies of the information requested in the above-mentioned order. Please note that we have modified the closure plan to incorporate in-situ containment of all potentially hazardous materials in the subject impoundment. Item numbers correspond to the list of requirements as outlined in the Bureau's letter of June 11, 1984.

I believe we have responded to all items of concern. Dick Karkkainen and I would be happy to meet with you to discuss any further questions or review this submittal.

Sincerely,

John G. Hill
Environmental Engineer

JGH/ld
Enc.

cc - F. Ahlers
R. Karkkainen

FILE COPY

September 13, 1984

Mr. Dick Karkkainen
Vertac Chemical Corp.
24th Floor, 5100 Poplar
Memphis, Tennessee 38137

Dear Mr. Karkkainen:

Re: Commission Order
For Resubmittal of Part B
MSD990714081

Your letter of August 14, 1984, requested a 30 day extension of time to resubmit the Part B application for the Vicksburg facility.

This letter is to confirm our telephone conversation that the Bureau will grant the requested 30 day extension. The submittal of the revised Part B is now September 30, 1984.

Should you have any further questions, please contact our office.

Sincerely,

Charles Estes, P.E.
Division of Solid Waste Management

CE:ps



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

August 14, 1984

Mr. Charles Estes
Hazardous Waste Section
Mississippi DNR
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

RECEIVED
1984 AUG 16 AM 9:57
MISSISSIPPI DEPARTMENT
OF NATURAL RESOURCES
BUREAU OF POLLUTION
CONTROL

RE: Commission Order No. 717-84

Dear Mr. Estes:

In confirmation of our discussion this day pursuant to "activity 2" of the referenced order in which the Commission has required the submission, on or before August 30, 1984, of revisions to our Part B application consistent with comments of the Bureau of Pollution Control we request and will be granted a 30 day extension of time.

The reason we need the extension of time is that we have hired within the last two weeks an environmental engineer for Vicksburg, Mr. John Hill. Mr. Hill will be responsible for the "activity 2" submission. Without the extension of time he would have only one week to become familiar with and provide the minute detail required by the Bureau.

For the record it should be noted that there are 17 comments submitted to us by the Bureau of Pollution Control. Comment 17 has been addressed by our "activity 1" submittal of August 6, 1984. Comments 1 through 5 have been addressed by Mr. Maraman and can be sent as a partial submittal, if desired. Comments 6 through 16 all address the surface impoundment closure plan.

The closure plan is being revised and drawings prepared. As presented in the original Part B submittal the closure was presented as a cost effective plan consisting of consolidating sediments in the 3 sectioned surface impoundment into one section. Unfortunately that opened up the question of "how clean is clean" when moving sediment. With no guidelines on "how clean is clean" it is probable that the analytical, exploratory and unknown aspects of the original plan

Page 2
August 14, 1984

no longer make it cost effective. Hence, the new closure plan and cost estimate will entail the conventional approach of stabilizing the sediments, filling in the entire pond with dirt, capping with clay, and adding topsoil and vegetation.

I appreciate your understanding and cooperation.

Best regards,



Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: F. L. Ahlers
R. A. Guidi
J. Hill
G. D. Madsen
R. F. Maraman



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

TELEX 53927

August 6, 1984

Mr. Charles Estes
Hazardous Waste Section
Mississippi DNR
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

RE: Commission Order No. 717-84

Dear Mr. Estes:

Pursuant to "activity" of the referenced order in which the Commission has required the submission of a groundwater assessment program on or before August 6, 1984, the attached outline describing such a program is attached. The plan and schedule of implementation, which has been prepared by Mr. Alan Gradet of IT Corporation (D'Appolonia) for Vertac, is a program which, when approved by you and then executed by us, will allow continuing compliance with the appropriate Federal regulations found in 40 CFR 265.93 (d)(3) and (4) and the corresponding rules of the State of Mississippi. The groundwater assessment program is based in part on two groundwater assessment studies already provided by Vertac, specifically:

1. "Hydrogeological Investigation - Vertac Chemical Corporation Facility - Vicksburg, Mississippi" prepared by Developers, International Services Corporation and dated November 21, 1981.
2. "Final Report - Monitoring Well Installation Program - Vertac Chemical Corporation prepared by MCI/Consulting Engineers, Inc. and dated March 21, 1983.

Once implemented, the groundwater assessment program will provide:

- the number, location and depths of wells;
- sampling and analytical methods for hazardous wastes and hazardous waste constituents;
- evaluation procedures.

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL
1984 AUG -8 AM 9:30

RECEIVED

Page 2
August 6, 1984

Additionally the data collected throughout the term of this plan will be used to determine the rate, extent and concentration of hazardous wastes and hazardous waste constituents in the groundwater.

I trust that regulatory agencies will find this program acceptable.

Best regards,



Dick Karkkainen
Director of Environment and Safety

RDK/bh

cc: Alan Gradet (IT Corp.)
John Hill (Vicksburg)

PROPOSED GROUNDWATER ASSESSMENT PROGRAM

A. HYDROGEOLOGIC CONDITIONS

Purpose: Establish the rate and extent of potential contaminant migration.

A.1 Soil Stratigraphy

Data from existing soil borings will be used to prepare stratigraphic cross-sections of the subject area. These sections will be used to identify the uppermost water bearing zone and to display the relationship between the uppermost water bearing zone and potential sources of contamination.

SCHEDULE: Complete 30 days after receipt of plan approval.

A.2. Existing Hydrogeologic Data

All existing site specific hydrogeologic data will be compiled and reviewed. These data include well drillers reports, soil boring data and water level data.

SCHEDULE: Complete 30 days after receipt of plan approval.

A.3 Description of Existing Hydrogeologic Conditions

The data collected under sections A.1 and A.2 above will be used to prepare a description of the hydrogeologic conditions underlying the site. This will include a lithologic description of the uppermost water bearing zone, preliminary determination of the direction of groundwater flow and a determination of the rate of groundwater flow.

SCHEDULE: Complete 60 days after receipt of plan approval.

A.4 Water Level Monitoring Program

A monitoring program will be implemented to confirm the conclusions made in Section A.3 above. This program will consist of monthly measurements of water level in:

- a) Wells #1, #2, #4, #5, #6, #7, #8;
- b) The storage impoundment; and
- c) Hennessey's Bayou

These measurements will be made for twelve consecutive months. Also, based on the results of step A-3, additional water level piezometers may be installed to more accurately establish groundwater gradients.

SCHEDULE: This program will commence 30 days after receipt of approval and will be complete 360 days after receipt of plan approval.

B. HAZARDOUS CONSTITUENTS

Purpose: To identify those Appendix VIII Hazardous constituents which might be present in the active or inactive disposal site.

B. (cont'd)

B.1 Chemicals Already Found

A summary of the data on the hazardous constituent detected in one well will be prepared.

B.2 Raw materials and Products

A listing of raw materials used and chemical products manufactured at the Vicksburg plant will be prepared.

B.3 Specifications of Hazardous Constituents

All appendix VIII Hazardous constituents which have not been detected in groundwater under the site are not raw materials, products or known degradation by products, and for which there are no acceptable analytical procedures will be dropped from consideration. All others will be identified as potential hazardous constituents. SCHEDULE: The potential hazardous constituents will be specified within 90 days after receipt of plan approval.

C. REVIEW OF EXISTING DATA

Purpose: To review the existing groundwater data base for inconsistencies and inaccuracies.

C.1 Well #5 Construction and Well #1 Construction

The construction of wells #5 and #1 will be reviewed in relation to the other monitoring wells. If construction specifications are found to be inconsistent, the wells will be redesigned and replaced.

C.2 Statistical Significance

The significance of the variability of conductivity and TOH data in Wells #4, #5, and #6 will be reviewed for consistency with statistical assumptions.

C.3 Interference with TOH data

The variability in TOH data will also be reviewed in relation to possible chemical interference in the analytical procedure.

SCHEDULE: These review items will be complete within 60 days after receipt of plan approval.

D. SAMPLING & ANALYSIS

Purpose: To determine the concentration of hazardous constituents in the groundwater using existing monitor wells #4, #1, #5, and #6.

D.1 First Quarterly Sampling

The first quarterly sampling will be conducted 90 days after receipt of plan approval. Representative samples will be collected from the above referenced monitor wells using EPA approved procedures. The samples will

D. (cont'd)

be tested for all hazardous constituents identified under Section B and:

pH	Chlorides
Conductance	Sodium
TOC	Sulfate
TOH	Potassium
TDS	Nitrate

All laboratory tests will be performed in accordance with Standard Methods for the Analysis of Water and Wastewater or EPA SW-846.

SCHEDULE: Samples collected 90 days after receipt of plan approval. Test results completed as per laboratory schedule.

D.2 Second Quarterly Sampling

A second set of groundwater samples will be collected 180 days after receipt of plan approval. All parameters and procedures will be the same as D.2 except only those hazardous constituents detected in the first quarterly sampling will be tested for.

SCHEDULE: Samples collected 180 days after receipt of plan approval. Test results completed as per lab schedule.

D.3 Third and Fourth Quarterly Sampling

Same as D.2 except the third quarterly sampling will be 270 days after receipt of plan approval and the fourth will be 360 days after receipt of plan approval.

961-5171

7/18/84

<u>Name</u>	<u>Organization</u>
Charles Estes	BPC
Steve Spengler	BPC
Sammy Warren	EPS
Herb Johnston	EPS
STEVE LORANTH	LORANTH + ASSOC. INC
BOB MARAMAN	VERTAC, VICKSBURG.
TONY NASSEF	Polybac CURB
Jim Phillipis	Disposal Systems, Inc.

June 11, 1984

FILE COPY

Mr. Dick Karkkainen
Vertac Chemical Corporation
24th Floor, 5100 Poplar
Memphis, Tennessee 38137

Dear Mr. Karkkainen:

Re: Part B Application Review
for MSD990714081

After reviewing your facility's resubmitted Part B application, specific items listed on the attached pages were found to need clarification or additions. The application should be submitted with appropriate page numbers.

Please organize the new material so that it may be inserted into the original application or send us an entirely revised application. All corrections and/or additions to the application must be submitted to this office no later than August 30, 1984. Please contact us should you have any questions on any of these items.

Sincerely,

Charles Bates, P. E.
Hazardous Waste Section

CE:hdb

Attachments

cc: Ms. Beverly Spagg, Environmental Protection Agency, Region IV

RECOPY

May 24, 1984

Mr. James Scarbrough, P.E., Chief
Residuals Management Branch
U. S. Environmental Protection Agency
Region IV
345 Courtland Street, N. E.
Atlanta, Georgia 30365

Dear Mr. Scarbrough:

Enclosed are copies of the sudden and non-sudden insurance policies required under RCRA for Vertac Chemical Corporation in Vicksburg. These policies were requested by Susan Casnocha of your staff.

We are particularly concerned about the failure of the non-sudden policy to provide coverage for groundwater contamination. While the RCRA regulations do not specifically mention allowable exclusions in policies, this is obviously not one that should be included.

We intend to require a change in the policy to remove this exclusion. We would welcome any comments your staff has on this matter. We plan to make a response to the facility by June 15, 1984. Thank you for your thoughts on this matter.

Sincerely,

Jack M. McMillan, Director
Division of Solid Waste Management

JM:DL:cu
Enclosures



VERTAC CHEMICAL CORPORATION

24th Floor • 5100 Poplar • Memphis, TN 38137 • 901-767-6851

APR 18 1984

REPLY TO: P. O. BOX 3
VICKSBURG, MS 39180
(601) 636-1231

April 17, 1984

Mississippi Bureau of Pollution Control
Hazardous Waste Section
P. O. Box 10385
Jackson, MS 39209

Gentlemen: Attention: Mr. Chuck Estes

Subject: Transporter Copies of the Salt
Cake Manifests

Most or all of the above manifests are on file in the receiving department.
They will be copied and sent to the effluent lab for filing.

If any are then found missing a copy will be requested from the disposer.

I believe this will take care of the file situation.

Sincerely,

R. F. Maraman

R. F. Maraman
Chief Chemist

RFM/ld

cc - F. Ahlers
J. Horn
D. Karkkainen
D. Madsen
RFM
File

